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GRAFENWHR AAP GERMANY (WEST) REVISED UNIFORM SUMMARY
OF SURFACE WEATHER..(U) AIR FORCE ENVIRONMENTAL
TECHNICAL APPLICATIONS CENTER SCOTT A.. 03 SEP 82

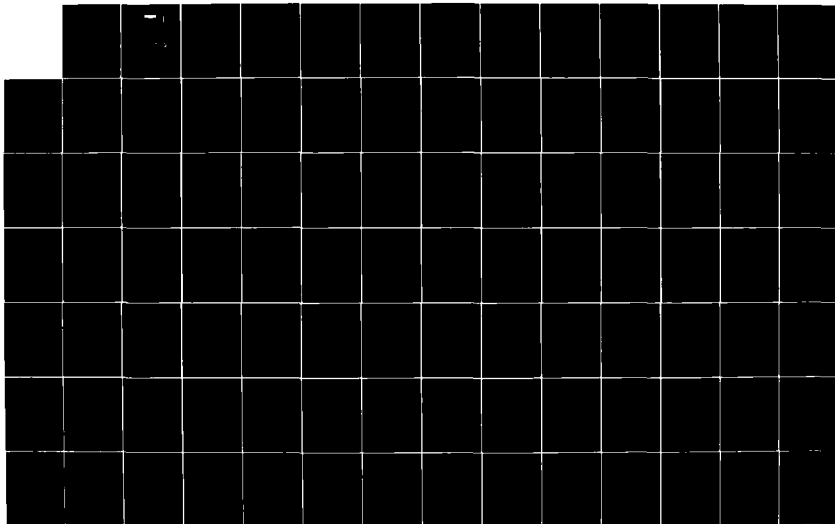
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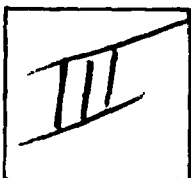
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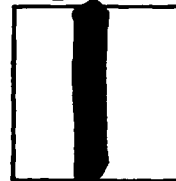
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REVISED UNIFORM SUMMARY OF
SURFACE WEATHER OBSERVATIONS

GRAFENWOHR AAF IL
N 49 42 E 011 57 FLV ELEV 1360 FT EDIC 7106270

0 3 SEP 1982

PARTS A-F
FOR FROM HOURLY OBS: JAN 73 - DEC 81
FOR FROM DAILY OBS: JUN 62 - DEC 81
TIME CONVERSION GMT TO LST: +1

AUG 31 1982

FEDERAL BUILDING
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Wayne E. McCollom

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FOR THE COMMANDER

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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM															
1. REPORT NUMBER USAFETAC/DS-82/052	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER															
4. TITLE (and Subtitle) Revised Uniform Summary of Surface Weather Observations (RUSSWO)- GRAFENWOHR AAF, WEST GERMANY		5. TYPE OF REPORT & PERIOD COVERED Final rept.															
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17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)																	
18. SUPPLEMENTARY NOTES																	
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) <table border="0"> <tr> <td>*RUSSWO</td> <td>Daily temperatures</td> <td>Atmospheric pressure</td> </tr> <tr> <td>Snowfall</td> <td>Extreme snow depth</td> <td>Extreme surface winds</td> </tr> <tr> <td>Climatology</td> <td>Sea-level pressure</td> <td>Psychrometric summary</td> </tr> <tr> <td>Surface Winds</td> <td>Extreme temperature</td> <td>Ceiling versus visibility</td> </tr> <tr> <td>Relative Humidity</td> <td>*Climatological data</td> <td>(over)</td> </tr> </table>			*RUSSWO	Daily temperatures	Atmospheric pressure	Snowfall	Extreme snow depth	Extreme surface winds	Climatology	Sea-level pressure	Psychrometric summary	Surface Winds	Extreme temperature	Ceiling versus visibility	Relative Humidity	*Climatological data	(over)
*RUSSWO	Daily temperatures	Atmospheric pressure															
Snowfall	Extreme snow depth	Extreme surface winds															
Climatology	Sea-level pressure	Psychrometric summary															
Surface Winds	Extreme temperature	Ceiling versus visibility															
Relative Humidity	*Climatological data	(over)															
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This report is a six-part statistical summary of surface weather observations for GRAFENWOHR AAF, WEST GERMANY It contains the following parts: (A) Weather Conditions; Atmospheric Phenomena; (B) Precipitation, Snowfall and Snow Depth (daily amounts and extreme values); (C) Surface winds; (D) Ceiling versus Visibility; Sky Cover; (E) Psychrometric Summaries (daily maximum and minimum temperatures, extreme maximum and minimum temperatures, psychrometric summary of wet-bulb temperature depression versus dry-bulb temperature, means and standard deviations of dry-bulb, wet-bulb (over)																	

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19. Percentage frequency of distribution tables
Dry-bulb temperature versus wet-bulb temperature
Cumulative percentage frequency of distribution tables

WEST GERMANY

GRAFENWOHR AAF, WEST GERMANY

20. and dew point temperatures and relative humidity); and (F) Pressure
Summary (means, standard, deviations, and observation counts of
station pressure and sea-level pressure). Data in this report are
presented in tabular form, in most cases in percentage frequency of
occurrence or cumulative percentage frequency of occurring tables.

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SECURITY CLASSIFICATION OF THIS PAGE(When Data Entered)

The number that identifies the station in this summary is an AWS Master Station Catalog number. This number is comprised of the WMO number with the addition of a suffix zero; or, in cases where there is no designated WMO number, a 5-digit number created in agreement with WMO rules, plus a sixth qualifying digit. These numbers (also referred to as DATSAV or USAFETAC numbers) uniquely identify each of more than 15,000 reporting stations around the world. This is the provenance of the number (e.g., MSC 999999) which will appear on future OL-A standard products.

U S AIR FORCE
ENVIRONMENTAL TECHNICAL
APPLICATIONS CENTER

REVISED UNIFORM SUMMARY OF SURFACE WEATHER OBSERVATIONS

HOURLY OBSERVATIONS

Hourly observations are collected at those reporting stations and observations recorded at designated hourly intervals.

DAILY OBSERVATIONS

Daily observations are selected from all data recorded on reporting forms and compiled into summary of the day's observations (beginning at midnight local boundary of the day required, etc.).

DESCRIPTION OF SUMMARIES

Each summary section is a brief description of the data comprising each part of the revised uniform summary of surface weather observations and the manner of presentation. Summaries are prepared from hourly and daily observations beginning at midnight local boundary of the day required, etc.

For observations listed the following summaries are included for this station:

PART A WEATHER CONDITIONS

ATMOSPHERIC PHENOMENA

PART B PRECIPITATION

SNOWFALL

SNOW DEPTH

PART C SURFACE WINDS

PART D CEILING VERSUS VISIBILITY

SKYCOVER DATA NOT AVAILABLE

PART E DAILY MAX, MIN, & MEAN TEMP

EXTREME MAX & MIN TEMP

PSYCHROMETRIC DRY VS WET BULB

MEAN & STD DEV (DRY BULB, WET BULB, & DEW POINT)

RELATIVE HUMIDITY

PART F STATION PRESSURE

SEA LEVEL PRESSURE DATA NOT AVAILABLE

STANDARD 3-HOUR GROUPS

All weather-requiring summary variations are summarized in eight 3-hour periods corresponding to the following sets of hourly observations: 0000-0200, 0300-0500, 0600-0800, 0900-1100, 1200-1400, 1500-1700, 1800-2000, 2100-2300 hours local standard time.

MISSING HOUR GROUPS

Summary sheets are omitted when stations maintaining limited observing schedules did not report certain three-hour periods for any particular month during the available period of record. Such missing sheets are listed below, and are applicable to all summaries prepared from hourly observations.

APRIL _____

APRIL _____

MAY _____

MAY _____

MAY _____

MAY _____

JUNE _____

JUNE _____

JUNE _____

JUNE _____

JULY _____

JULY _____

STATION NO ON SUMMARY	STATION NAME	LATITUDE	LONGITUDE	STATION ELEV (FT)	CALL SIGN	WMO NUMBER
106870	GRAFENWOHR GERMANY AAF	N 49 42	E 011 57	1360	EDIC	10687

STATION LOCATION AND INSTRUMENTATION HISTORY									
NUMBER OF LOCATION	GEOGRAPHICAL LOCATION & NAME	TYPE OF STATION	AT THIS LOCATION		LATITUDE	LONGITUDE	ELEVATION ABOVE MSL		OBS PER DAY
			FROM	TO			STATION (FT)	BAROMETER	
1	Grafenwohr Germany	AAF	Jan 59	May 62	N 49 42	E 011 57	1370	N/A	12 to 16
2	No change	AAF	Jun 62	Feb 65	No chge	No chge	No chge	N/A	24
3	No change	AAF	Mar 65	Dec 70	No chge	No chge	No chge	1363	24
4	Same	AAF	Jan 71	Aug 82	Same	Same	1360	Same	24

NUMBER OF LOCATION	DATE OF CHANGE	SURFACE WIND EQUIPMENT INFORMATION				REMARKS, ADDITIONAL EQUIPMENT, OR REASON FOR CHANGE
		LOCATION	TYPE OF TRANSMITTER	TYPE OF RECORDER	HT ABOVE GROUND	
1	Jan 59 to Feb 60	Located on top of helicopter shed, 100 ft W of active runway.	AN/CNQ-11	None	20 ft	
2	Mar 60 to Feb 61	Located on top of hangar roof, 100 ft W of active runway.	No chge	No chge	35 ft	
3	Mar 61 to Sep 67	Located on top of control tower.	No chge	RO-2	50 ft	
4	Oct 67 to Dec 70	Located 285 ft from centerline parallel with Runway 32.	No chge	No chge	13 ft	

NUMBER OF LOCATION	DATE OF CHANGE	SURFACE WIND EQUIPMENT INFORMATION				REMARKS, ADDITIONAL EQUIPMENT, OR REASON FOR CHANGE
		LOCATION	TYPE OF TRANSMITTER	TYPE OF RECORDER	HT ABOVE GROUND	
5	Aug 82	Same	Same	Same	Same	

U S AIR FORCE
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A

PART A

WEATHER CONDITIONS

This summary is a percentage frequency occurrence of various atmospheric phenomena and obstructions to vision, derived from hourly observations, and is presented in two tables as follows:

1. By month and annual, all hours and years combined.
2. By month, all years combined, by standard 3-hour groups.

A percent value of ".0" in these tables indicates less than .05 percent, which is usually only one occurrence. The various phenomena included in each category on the forms are listed below:

Thunderstorms - All reported occurrences of thunderstorm, tornado, and waterspout.

Rain and/or drizzle - All liquid precipitation, falling to the ground, not freezing.

Freezing rain and/or freezing drizzle (glaze) - Precipitation falling in liquid form, but freezing on contact with an unheated surface.

Snow and/or sleet (ice pellets) - Included are snow, snow pellets, sleet, snow grains, ice crystals, and ice pellets from Jan 68 and later. (Snow pellets also known as soft hail)

Hail - Occurrences of hail and small hail are included.

Percentage of observations with precipitation - Included in this category are the observations when one or more of the above phenomena occurred. Since more than one type of precipitation may be reported in the same observation, the sums of the individual categories may exceed the percentages of the observations with precip.

Fog - Included are fog, ice fog, and ground fog.

Smoke and/or haze - Occurrences of smoke, haze, or combinations of smoke and haze are included.

Blowing snow - Occurrences of blowing snow (also drifting snow when reported from non-WBAN sources).

Dust and/or sand - Included are blowing dust, blowing sand, and dust.

Continued on Reverse

Blowing spray - This item if reported, is not shown in a separate category on this form but is included in the computation Percentage of Observations with Obstructions to Vision, below.

Percentage of observations with obstructions to vision - Included in this category are the observations when one or more of the above obstructions to vision occurred. Since more than one type of obstruction may be reported in the same observation, the sums of the individual categories may exceed the percentage total columns. Also, although precipitation may reduce visibility, it is not considered an obstruction to vision for purposes of this summary; therefore, the percentage total of obstructions to vision need not reflect the total observations with reduced visibility.

U.S. CLIMATOLOGY BRANCH
 WETAC
 WEATHER SERVICE/MAC

WEATHER CONDITIONS

7 STATION NAME: WAFENADORE AAF MC 73-81 YEARS: 04 MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER
 CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER- STORMS	RAIN AND OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIR	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS
1-5	0-11		1.2	.4	13.5		26.5	55.7	1.6			77.4	7
	12-23		6.1	.7	13.5		26.7	54.1	1.1			77.5	4
	24-31		10.7	.7	15.9		26.4	56.2	1.7			77.7	10
	1-11		1.1	1.1	22.4		32.5	49.9	4.1			64.6	13
	12-23		12.3	.6	22.1		33.6	36.4	12.1			49.6	12
	24-31		17.3	.7	18.6		29.9	36.7	15.4			77.1	14
	1-23		18.6	.4	17.1		26.5	47.5	9.4			76.4	11
	24-31		11.0	.4	16.3		26.5	51.4	4.7	.1		74.2	11
TOTALS			17.3	.7	16.7		26.6	46.5	6.3	.1		74.1	77

U.S. AIR FORCE
METEOROLOGICAL BRANCH
AFMTC
AF WEATHER SERVICE/MAC

WEATHER CONDITIONS

7
STATION

WRAFFENBACH AAF IL
STATION NAME

73-81

YEARS

1
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER- STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS
01-02			10.8	.8	12.5		22.7	48.3	4.2			11.1	767
03-05			11.6	.7	13.0		24.7	49.3	3.2			10.4	761
06-08			11.9	1.2	14.3		27.3	51.0	3.0			11.5	760
09-11			11.7	.5	17.1		27.5	41.7	13.3			11.5	761
12-14			9.6	.1	12.1	.1	21.3	24.1	22.2			46.3	767
15-17		.1	9.7		12.7		21.1	17.6	21.3			38.8	760
18-20			9.2		10.5		18.1	34.4	14.4			48.2	760
21-23			8.5	.7	12.2		20.5	44.2	7.2			11.2	760
TOTALS		.1	10.4	.5	13.1	.1	22.9	39.0	11.7			10.0	6144

LOCAL CLIMATOLOGY BRANCH
 PETAC
 AIR WEATHER SERVICE/MAC

WEATHER CONDITIONS

STATION

GRAFENWOHR AFB AL

STATION NAME

73-81

YEARS

MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (LST.)	THUNDER- STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO OF OBS
MAR	0-11		1.2		6.6		17.1	41.5	5.9			41.4	127
	12-25		11.6		7.9		18.9	45.1	2.1			43.3	127
	26-31		11.2		2.2		20.3	50.8	5.4			56.1	127
	0-11		13.5		10.0		22.7	28.6	16.7			47.4	127
	12-14		12.3		6.9		13.2	11.1	21.7			32.4	127
	15-17	.1	12.2		5.9		16.4	6.6	17.7			24.6	127
	18-20	.2	13.4		5.1		17.1	14.7	15.1			26.7	127
	21-23		11.2		3.9		14.5	30.7	8.7			39.4	127
TOTALS		.3	12.3		7.1		18.2	28.9	11.7			41.3	644

AF CLIMATOLOGY BRANCH
 ALTAO
 WEATHER SERVICE/MAC

WEATHER CONDITIONS

STATION 73-41 STATION NAME YEARS MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER- STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HALE	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS
APR	00-02		10.7	.3	2.6		13.2	32.7	4.2			36.4	794
	03-05		9.7		5.3		14.5	47.3	3.8			31.1	797
	06-08		11.5		7.3		16.2	49.4	11.7			37.5	797
	09-11		11.1		6.7		16.7	16.7	21.1			37.8	797
	12-14	.2	11.2		5.4		15.7	3.2	13.1			16.4	797
	15-17	.6	10.0		4.0		12.7	2.6	7.9			12.5	797
	18-20	.3	12.4	.1	3.8		15.3	5.6	12.1			17.7	797
	21-23		10.6		4.0		13.3	17.0	13.1			27.1	792
TOTALS		.1	10.9	.1	4.9		14.8	21.8	13.4			32.3	6767

JOINT CLIMATOLOGY BRANCH
 WETLAC
 AIR WEATHER SERVICE/MAC

WEATHER CONDITIONS

73-01
 STATION

GRAFENWCHP AAF DL
 STATION NAME

73-01
 YEARS

MAY
 MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER- STORMS	RAIN AND OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP	FOG	SMOKE AND OR HAZE	BLOWING SNOW	DUST AND OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO OF OBS
MAY	00-02	.5	10.1		.1		10.1	11.5	2.2			33.3	27
	03-05		11.2		.1		11.3	57.5	2.7			80.5	1
	06-08	.1	11.8		.2	.1	12.2	41.3	11.1			65.1	128
	09-11	.1	11.7		.4		10.9	7.7	16.7			24.3	34
	12-14	1.2	12.9		.6	.1	13.4	2.6	9.2			17.2	34
	15-17	2.9	11.3		.1		11.4	1.7	6.6			18.3	11
	18-20	1.7	10.3				10.3	3.9	6.4			16.3	27
	21-23	.8	11.9				10.9	13.4	6.4			27.3	29
TOTALS		.9	11.2		.2	.1	11.3	19.5	7.0			27.3	6417

CENTRAL CLIMATOLOGY BRANCH
METAC
AIR WEATHER SERVICE/MAC

WEATHER CONDITIONS

47
STATION

SPAFEN-042 AAF DL
STATION NAME

73-81

YEARS

JUN
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (LST)	THUNDER- STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN &/OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS
JUN	0-23	1.1	11.6				11.6	34.1	6.5			3.5	804
	03-05	1.2	13.6				13.6	55.6	1.5			57.1	809
	06-08	.4	13.3				13.3	44.3	12.1			56.4	810
	09-11		9.8				9.8	6.9	17.3			24.2	811
	12-14	1.7	9.5				9.5	2.5	8.5			9.5	812
	15-17	2.3	8.3				8.3	2.2	3.9			8.3	813
	18-20	1.5	10.4				10.4	3.3	5.7			9.	814
	21-23	1.9	11.3				11.3	17.3	6.3			25.5	815
TOTALS		1.3	11.				11.0	23.8	7.			27.7	8470

GENERAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

WEATHER CONDITIONS

67
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81

YEARS

JUL
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER
CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER- STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & / OR DRIZZLE	SNOW AND/OR SLEET	HALE	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO OF OBS
JUL	0-22	.7	1.4				1.4	41.2	3.5			44.7	210
	03-05	.2	13.1				13.1	55.6	1.7			17.3	131
	06-08		13.6				13.6	48.6	1.5			59.1	231
	09-11	.1	15.0				15.0	9.1	20.0			29.1	131
	12-14	1.0	16.1				16.1	3.0	7.7			19.7	131
	15-17	1.7	14.3				14.0	3.6	4.9			18.0	131
	18-20	2.3	12.7				12.7	4.1	7.3			11.9	109
	21-27	2.2	13.4				13.4	24.6	5.7			32.6	409
TOTALS		1.0	13.6				13.6	24.1	4.7			37.1	640

METEOROLOGICAL CLIMATOLOGY BRANCH
 AFMPC
 AIR WEATHER SERVICE/MAC

WEATHER CONDITIONS

STATION WPAFB AFB OH STATION NAME WPAFB YEARS 73-81 MONTH ALL

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (LST.)	THUNDER- STORMS	RAIN AND OR DRIZZLE	FREEZING RAIN & OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND OR HAZE	BLOWING SNOW	DUST AND/OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO OF OBS
1-3	0-11	.5	6.9				6.8	50.7	1.6			52.9	57
	12-23	.4	6.7				6.7	65.4	1.6			67.4	537
	24-01	.4	7.6				7.6	64.2	9.2			73.4	527
	2-11	.2	7.5				7.5	16.6	27.1			44.6	537
	12-14	.7	8.5				8.5	2.6	17.1			19.7	54
	15-17	2.3	11.8				13.6	2.6	30.6			36.1	57
	18-23	1.9	9.8				9.8	9.7	11.5			21.0	57
	24-23	.8	8.9				8.9	22.1	6.1			35.1	516
TOTALS		.9	8.1				6.1	30.5	10.6			41.1	5690

CLIMATE CLIMATOLOGY BRANCH
USAFETAC
WEATHER SERVICE/MAC

WEATHER CONDITIONS

STATION GRAFENWIS AAF OL YEARS MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER
CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER- STORMS	RAIN AND OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND OR HAZE	BLOWING SNOW	DUST AND OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO OF OBS
01-02	00-07	.4	1.6				10.6	83.0	1.7			4.7	84
	03-05		8.7				6.7	62.4	.7			67.2	84
	06-08		11.4				11.4	68.1	1.9			69.5	805
	09-11	.1	10.8				10.8	79.1	22.7			81.4	823
	12-14	.4	9.1			.1	9.2	6.5	21.4			38.4	84
	15-17	.5	9.1				9.1	4.1	18.2			17.7	84
	18-20	1.5	8.8				8.8	17.4	12.7			29.4	800
	21-23	.1	9.6				9.8	79.3	4.0			47.3	799
TOTALS		.4	9.8			.1	9.8	35.0	10.0			47.7	6427

GLOBAL CLIMATOLOGY BRANCH
AFETAC
WEATHER SERVICE/MAC

WEATHER CONDITIONS

STATION 477 RAFENW04R AAF DL STATION NAME 73-81 YEARS 067 MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (LST.)	THUNDER- STORMS	RAIN AND OR DRIZZLE	FREEZING RAIN & OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO OF OBS
007	00-07		15.8		.5		17.0	56.6	1.4			54.2	36
	08-15		14.2		.5		14.5	63.2	.1			47.7	37
	16-23		15.8		.8		15.2	64.3	2.7			46.7	37
	24-31		15.1		.5		15.2	45.2	13.8			54.2	37
	12-14		14.8		.2		14.8	15.8	21.9			37.5	37
	15-17		16.0		.1		16.1	11.2	22.7			33.9	37
	18-21		17.8		.2		17.7	39.7	9.4			49.2	37
	22-23		16.7		.5		16.4	51.2	3.2			45.2	37
TOTALS			15.7		.4		15.9	43.5	9.7			52.2	6674

CLIMATE CLIMATOLOGY BRANCH
USAFETAC
AF WEATHER SERVICE/MAC

WEATHER CONDITIONS

STATION 677 GRAFENWOHR AAF DL STATION NAME 73-61 YEARS NOV MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (LST.)	THUNDER- STORMS	RAIN AND OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND OR HAZE	BLOWING SNOW	DUST AND OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS
NOV	10-20		15.5		9.8		22.7	51.4	7.1			17.5	777
	21-30	.1	14.9	.1	8.2		22.4	53.4	2.1			17.5	794
	1-10		12.3	.1	10.7		22.3	54.5	2.1			17.5	798
	11-20		13.4		13.5		26.1	47.1	5.0			17.5	798
	21-30		14.3		1.5		23.7	30.6	10.0			41.4	777
	1-10		15.8	.1	4.8		23.0	31.5	9.0			41.4	777
	11-20	.1	14.5	.1	9.5	.1	23.2	44.5	5.0			17.5	794
	21-30		14.2		10.4		23.5	47.1	3.0			17.5	797
TOTALS		.1	14.4	.1	1.2	.1	23.6	45.7	5.1			17.1	3777

U.S. AIR FORCE CLIMATOLOGY BRANCH
 AFMPC
 AIR WEATHER SERVICE/HAC

WEATHER CONDITIONS

STATION RAFENWHR AAF DL STATION NAME 70-01 YEARS MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER
 CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (LST.)	THUNDER- STORMS	RAIN AND OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS
01-01	00-00		13.6	1.3	16.1		29.8	42.1	1.0			67.1	1
	01-05		12.7	1.7	16.3		29.9	43.1	.9			68.0	1
	06-08		14.6	1.6	17.1		32.8	45.5	1.2			46.7	7
	09-11		15.1	1.0	13.4		33.9	44.1	3.7		.1	47.3	7
	12-14		15.1	.4	14.6	.1	29.3	35.0	1.7			41.2	7
	15-17		14.3	.3	13.3		26.9	35.4	5.4			41.7	7
	18-20	.1	14.4	.1	13.2		27.4	43.9	4.5			41.4	7
	21-23		14.4	.7	12.6		26.9	46.9	2.8			46.7	7
TOTALS		.1	14.3	.9	15.3	.1	29.6	42.0	3.6		.0	46.4	541

1. CLIMATE CLIMATOLOGY BRANCH
2. AFAC
3. WEATHER SERVICE/MAC

WEATHER CONDITIONS

17
STATION

WAFENWDR AAF DL
STATION NAME

73-61

YEARS

ALL
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE OF WEATHER
CONDITIONS FROM HOURLY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER- STORMS	RAIN AND OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND OR HAZE	BLOWING SNOW	DUST AND OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS
JAN	ALL		1.3	.7	14.7		26.6	48.3	3.3	.7		4.4	6571
FEB		.3	10.4	.5	13.1	.1	22.9	39.	11.3			1.3	6571
MAR		.5	12.3		7.5		13.2	33.4	11.7			4.3	6571
APR		.1	10.4	.1	4.9		14.3	21.6	10.3			2.3	6571
MAY		.9	11.2		.2	.2	11.3	19.5	7.3			2.3	6571
JUN		1.3	11.7				11.3	20.6	7.			2.7	6571
JUL		1.3	13.6				13.6	24.1	3.			2.1	6571
AUG		.9	11.1				8.1	26.5	1.4			4.1	6571
SEP		.4	7.9			.2	7.3	35.3	10.3			4.3	6571
OCT			13.7		.4		15.9	43.5	6.7			2.7	6571
NOV		.6	14.4	.1	1.7	.1	23.6	45.1	3.1			2.1	6571
DEC		.6	14.3	.7	15.3	.3	29.6	42.6	3.3		.7	4.3	6571
TOTALS		.4	11.3	.2	5.3	.1	17.3	33.2	5.4	.7	.7	4.1	7710

PART A

ATMOSPHERIC PHENOMENA

This summary is a presentation of the percentage of days with occurrence of various atmospheric phenomena. These data are obtained from all recorded information on the reporting forms or from hourly data and combined into a daily observation.

The descriptions of the phenomena in the Weather Conditions Summary above also apply for the categories summarized in these daily tabulations. However, it should be noted that in this summary the columns headed "% OF OBS WITH PRECIP" and "% OF OBS WITH OBST TO VISION" show the percentage of days rather than the percentage of observations. Since more than one type of precipitation or more than one type of obstruction may occur in the same daily observation, the sum of the values in the individual categories may differ from the total columns.

A percent value of ".0" in the table indicates less than .05 percent, which is usually only one occurrence.

This presentation is by month with annual totals, and is prepared with all years combined.

- NOTES: (1) A day with rain and/or drizzle was not separately reported in the WBAN data prior to year 1949. Therefore, percentages in this column are restricted to the period Jan 1949 and later.
- (2) A day with freezing rain and/or freezing drizzle is also properly reported as a day with rain and/or drizzle.
- (3) A day with dust and/or sand is included in this summary only when visibility is reduced to less than $5/8$ mile.

ALCCL BIOLOGY BRANCH
 ATAC
 LATIN SERVICE/MAC

WEATHER CONDITIONS
 XXXXXXXXXXXXXXXXXXXXXXXXXXXX
 ATAC/PHENOMENON

7 STATION 245FENLOR AAF DL 42-41 YEARS 12 MONTH

PERCENTAGE OF DAYS WITH VARIOUS ATMOSPHERIC PHENOMENA
 FROM DAILY OBSERVATIONS

MONTH	HOURS (L.S.T.)	THUNDER- STORMS	RAIN AND/OR DRIZZLE	FREEZING RAIN & /OR DRIZZLE	SNOW AND/OR SLEET	HAIL	% OF OBS WITH PRECIP.	FOG	SMOKE AND/OR HAZE	BLOWING SNOW	DUST AND OR SAND	% OF OBS WITH OBST TO VISION	TOTAL NO. OF OBS
JAN	DAILY	.2	37.5	6.7	58.0	.3	69.5	68.1	77.0				5
FEB		.4	78.3	4.2	44.5		61.9	62.2	68.2	1.0			67
MAR		1.2	48.3	.5	31.9	.2	60.5	79.1	68.4	.1			24
APR		4.8	64.5	.2	18.5	1.4	60.1	77.8	68.0				66
MAY		12.4	55.2		7.2	1.0	55.1	74.4	62.0				44
JUN		21.5	5.7		.2	1.5	60.7	75.2	64.1				20
JUL		17.3	54.6			.5	54.6	61.7	62.3				60
AUG		12.4	51.9			.2	51.9	63.4	7.3				17
SEP		5.6	49.1			.3	49.2	65.8	74.0				17
OCT		.5	45.5		7.1		45.6	66.7	71.9				11
NOV		.3	53.3	2.3	32.2		65.3	65.9	68.3	.1			67
DEC		.2	41.7	5.6	46.2	.2	65.4	64.6	49.8	.5			14
TOTALS		6.5	48.5	1.7	19.4	.5	58.9	62.1	63.9	.2			712

U S AIR FORCE
ENVIRONMENTAL TECHNICAL
APPLICATIONS CENTER

PART B PRECIPITATION, SNOWFALL & SNOW DEPTH

This part of the Uniform Summary consists of eight summaries derived from daily observations as follows:

1. The first set presents, in three tables, the percentage frequency of various daily amounts of PRECIPITATION, SNOWFALL, and SNOW DEPTH. The daily amount summary is prepared by month and annual, all years combined, and includes percent of days with measurable amounts; percent of days having none, traces, and given amounts; and means, greatest and least monthly amounts. (The last three statistics are omitted from the snow depth summary because of their doubtful and limited value.) A total count of valid observations is given for months and annual. Stations are included in which a portion or all of the period may contain months with missing days. This will be noted on the summary pages. A percent value of ".0" in these daily amount tables indicates less than .05 percent which is usually only one occurrence.
2. The second set of three tables presents the extreme daily amounts, by individual year and month, of PRECIPITATION, SNOWFALL, and SNOW DEPTH for the entire period of record available. Also provided are the means and standard deviations for each month and annual (all months) and the total valid observation count. An asterisk (*) is printed in any year-month block when the extreme value is based on an incomplete month (at least one day missing for the month). When a month has valid observations reported but no occurrences, zeros are given in the tables as follows:

EXTREME DAILY PRECIPITATION	".00"	equals none for the month (hundredths)
EXTREME DAILY SNOWFALL	".0"	equals none for the month (tenths)
EXTREME DAILY SNOW DEPTH	"0"	equals none for the month (whole inches)

3. The third set of two tables provides the total monthly amounts of PRECIPITATION and SNOWFALL for each year-month and annual. Also prepared are the means, standard deviations, and total number of valid observations for each month and annual (all months). An asterisk (*) is printed in each data block if one or more days are missing for the month. No occurrences for a month are indicated in the same manner as in the extreme tables above. If a trace becomes the extreme or monthly total in any of these tables it is printed as "TRACE."

Continued on Reverse Side

Values for means and standard deviations do not include measurements from incomplete months.

- NOTES: (1) The above studies may also be prepared for stations operating for less than full months for portions or all of the period of record. This may include stations operating 5 or 6 days a week and those with only random days missing. An asterisk (*) in the data blocks will give an indication that a month is incomplete. Please refer to Station History at front of book and observation counts in each summary to evaluate the amounts of data missing.
- (2) Hail was included in snowfall occurrences in the summary of day observations prior to Jan 56, but these occurrences have been removed from snowfall category and counted as Hail in these summaries.
- (3) Snow Depth was recorded and punched at various hours during the period available from U. S. operated stations. The hours used by each service for each period are as follows:

Air Force Stations:

Beginning thru 1945	at 0800LST
Jan 46-May 57	at 1230GMT
Jun 57-present	at 1200GMT

U. S. Navy and National Weather Service (USWB)

Beginning thru Jun 52	at 0030GMT
Jul 52-May 57	at 1230GMT
Jun 57-present	at 1200GMT

2

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

DAILY AMOUNTS

PERCENTAGE FREQUENCY OF
PRECIPITATION
(FROM DAILY OBSERVATIONS)

116870 GRAFENWOHR AAF DL

62-81

STATION

STATION NAME

YEARS

	AMOUNTS (INCHES)													PERCENT OF DAYS WITH MEASUR- ABLE AMTS	TOTAL NO OF OBS	MONTHLY AMOUNTS (INCHES)		
PRECIP	NONE	TRACE	01	02-05	06-10	11-25	26-50	51-100	101-250	251-500	501-1000	1001-2000	OVER 2000			MEAN	GREATEST	LEAST
SNOWFALL	NONE	TRACE	01-04	05-14	15-24	25-34	35-44	45-64	65-104	105-154	155-254	255-504	OVER 504					
SNOW- DEPTH	NONE	TRACE	1	2	3	4-6	7-12	13-24	25-36	37-48	49-60	61-120	OVER 120					
JAN	6.3	21.3	6.2	14.6	9.3	12.4	5.5	1.2	.2					49.4	581	1.61	3.96	.4
FEB	5.1	17.5	5.6	12.8	8.6	12.8	4.5	.9	.2					45.4	537	1.61	5.73	.27
MAR	3.7	17.3	5.8	12.2	7.6	12.2	5.1	1.2	.2					44.3	589	1.80	3.22	.40
APR	2.3	18.3	4.9	11.6	7.9	10.2	6.5	.9	.2					42.3	567	1.81	3.92	.18
MAY	4.5	12.6	3.7	12.3	6.5	13.1	4.8	2.3	.5					42.9	587	1.18	4.41	.66
JUN	34.8	12.1	4.6	12.1	9.3	10.2	8.4	3.5	1.1					49.1	570	2.92	5.89	.85
JUL	45.2	14.2	5.2	8.6	4.7	11.2	6.3	3.4	1.0	.2				40.5	618	3.05	6.41	.15
AUG	47.9	12.4	5.7	11.6	5.5	7.7	5.8	3.2	.8					39.7	620	2.36	6.76	.39
SEP	57.5	8.7	5.8	10.4	6.8	9.2	5.7	2.3	.3					40.6	599	1.90	3.95	.34
OCT	42.7	1.2	3.7	10.0	6.8	9.2	5.0	2.1	.3					37.2	619	1.88	5.94	.23
NOV	1.1	17.3	6.7	16.2	8.5	12.1	7.2	1.0						51.6	597	1.91	3.91	.20
DEC	30.4	20.5	5.6	11.1	10.4	13.7	5.8	2.0	.2					48.8	604	2.09	6.66	.17
ANNUAL	40.5	15.2	5.2	12.0	7.7	11.2	5.9	2.0	.4	.0				44.3	7088	25.02		

U.S. AIR FORCE
CLIMATE DIVISION
METEOROLOGICAL SERVICE/MAC

EXTREME VALUES

PRECIPITATION

FROM DAILY OBSERVATIONS

STATION

STATION NAME

YEARS

YEARS

24 HOUR AMOUNTS IN INCHES

MONTH YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ALL MONTHS
1	.00	.19	.42	.40	.66	1.73	1.77	.30	.20	.17	.70	.49	1.17
2	.47	.12	.35	.24	.28	.93	.14	.35	.45	.42	.59	.17	1.17
3	.67	.32	.92	.73	.60	1.26	.85	.50	1.00	.11	.93	1.11	1.25
4	.45	.65	.66	.72	.42	1.48	.95	.71	.46	.90	.11	.16	1.47
5	.30	.64	.72	.36*	.84	.90*	.21	.64	.90*	.80	.10	.15	1.12
6	.42	.24	.29	.56*	.54	.43	.44	.96	.60	.32	.35	.11	1.06
7	.70	.40	.49	.50	.22	.75	1.94	.52	.57	.11	.56	.18	1.74
8	.50	1.12	.55	.62	.55	.36	.84	.85	.44	.60	.48	.14	1.12
9	.30	.16	.20	.39	1.07	.26	.04	.17	.30	1.22	.43	.10	1.22
10	.17	.16	.29	1.13	.44	1.06	1.37	1.56	.10	.61	.40	.11	1.06
11	.47	.29	.10	.37	.33	.52	.57	.30	.16	.43	.42	.10	1.07
12	.40	.46	.19	.75	.42	.06	.25	.55	.74	.63	.63*	.15	1.06
13	.27	.47	.28	.25	.50	1.03	.91	.63	.57	.22	.22*	.22	1.12
14	.25	.12	.34	.14	.19	.40	.56	.93	.76	.54	.36*	.15	1.09
15	.4	.44	1.12	.41	.19	.24*	.45	1.09	.50	.50*	.43*	.15	1.10
16	.1	.31	.52	.42	1.56	.42	.65	1.04	.67	.64*	.04*	.40	1.04
17	1.11	.25	.76*	.44	.25	.67	.38	.40*	1.10	.46*	.49*	.40	1.11
18	.74	.37	.27	.36	.62	.41	.94	.76	.95	1.10	.73*	.70	1.10
19	.44	.16	.43*	.44	1.14	.36	2.51	.96	.91	1.10	.41*	.57	2.51
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
MEAN	.475	.266	.479	.403	.564	.770	.666	.729	.582	.561	.445	.424	1.326
S. D.	.154	.243	.260	.257	.381	.357	.658	.429	.264	.221	.178	.187	.432
TOTAL OBS.	511	537	589	567	587	576	618	620	599	619	597	506	7020

NOTE * (BASED ON LESS THAN FULL MONTHS)

2

FEDERAL CLIMATOLOGY BRANCH
HEAD
NATIONAL SERVICE AREA

EXTREME VALUES

XXXXXXXXXXXXXXXXXXXX
MONTHLY PRECIPITATION

FROM DAILY OBSERVATIONS

STATION 7 STATION NAME STATION ADDRESS

YEARS

MONTHLY PRECIPITATION IN INCHES

MONTH YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ALL MONTHS
1	1.04	0.36	2.15	1.07	1.75	5.89	5.51	2.27	1.97	1.11	1.21	1.17	2.72
2	0.94	0.97	1.22	1.14	1.71	2.34	0.75	1.91	2.07	2.04	0.74	0.74	1.04
3	2.73	2.10	3.22	2.92	2.15	4.96	7.35	1.97	3.75	1.24	1.54	1.75	2.62
4	1.04	2.11	2.65	2.70	1.04	4.71	4.31	1.31	1.50	2.05	1.76	1.57	2.77
5	1.49	2.64	2.67	1.10	1.01	2.22	1.37	1.83	2.03	1.71	1.20	1.01	2.06
6	2.07	1.30	1.40	1.09	1.64	2.23	1.00	4.55	2.65	1.23	1.27	1.34	2.10
7	1.04	1.71	1.32	1.11	1.02	2.09	1.54	2.44	0.98	1.29	2.76	1.71	1.15
8	1.04	5.73	2.00	1.02	1.09	1.15	2.75	2.68	1.07	2.25	1.44	1.51	2.44
9	1.13	0.81	1.00	1.13	1.41	4.19	0.00	1.71	1.24	1.24	1.76	1.11	2.07
10	0.91	0.53	0.54	1.56	2.04	0.77	3.45	2.03	0.44	1.04	2.75	0.93	1.07
11	1.31	1.01	0.41	1.01	1.25	1.74	2.75	1.10	0.34	2.21	2.34	1.71	2.12
12	1.04	1.09	0.71	1.01	1.04	2.31	2.11	1.10	2.67	4.07	1.01	1.04	2.04
13	1.07	1.21	1.07	1.10	1.21	4.22	2.51	2.95	1.47	1.61	2.02	0.92	2.02
14	0.04	0.27	0.34	0.15	1.04	0.63	1.27	1.77	1.24	1.71	1.14	1.01	0.74
15	0.04	2.06	1.23	1.01	0.68	2.04	1.41	1.67	1.55	1.07	2.01	1.25	2.72
16	0.04	1.12	0.07	0.07	4.61	2.27	3.24	0.76	2.02	1.54	2.02	2.42	0.74
17	0.04	1.04	3.15	1.46	1.32	2.06	1.51	1.48	2.11	1.04	1.02	3.11	0.15
18	0.04	1.73	1.47	1.01	1.50	3.06	5.44	1.27	1.31	2.12	0.74	1.11	0.14
19	0.04	0.06	0.22	1.15	3.44	1.02	5.51	1.00	1.75	5.04	2.07	0.04	0.12
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
MEAN	1.10	1.07	1.79	1.51	2.07	2.91	3.47	2.16	1.90	1.75	1.91	2.07	2.07
S. D.	0.41	1.24	0.63	0.92	1.12	1.34	1.72	1.35	1.40	0.92	1.02	1.07	1.02
TOTAL OBS.	51	53	55	56	57	57	61	62	59	61	59	54	728

NOTE * (BASED ON LESS THAN FULL MONTHS)

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

DAILY AMOUNTS

PERCENTAGE FREQUENCY OF
SNOWFALL
(FROM DAILY OBSERVATIONS)

10677 GRAFENWOHR AAF DL

62-61

STATION

STATION NAME

YEARS

PRECIP	AMOUNTS (INCHES)													PERCENT OF DAYS WITH MEASUR- ABLE AMTS	TOTAL NO OF OBS	MONTHLY AMOUNTS (INCHES)		
	NONE	TRACE	01	02-05	06-10	11-25	26-30	31-100	101-250	251-500	501-1000	1001-2000	OVER 2000			MEAN	GREATEST	LEAST
SNOWFALL	NONE	TRACE	01-04	05-14	15-24	25-34	35-44	45-64	65-104	105-154	155-254	255-504	OVER 504					
SNOW DEPTH	NONE	TRACE	1	2	3	4-6	7-12	13-24	25-36	37-48	49-60	61-120	OVER 120					
JAN	44.0	21.9	14.3	11.5	5.7	1.5	1.4	.5	.2					73.4	581	9.7	24.4	2.5
FEB	4.4	16.8	12.7	10.1	4.5	.9	.6	.2						28.9	537	7.3	23.3	TRACE
MAR	67.6	15.4	6.8	6.1	2.5	.5	.3	.5	.2					17.0	589	5.5	17.4	TRACE
APR	10.4	11.3	2.5	4.2	.9	.2	.2							7.9	567	2.2	8.7	TRACE
MAY	6.0	1.9		.2										.2	589	TRACE	.9	.7
JUN	0.1														570	.0	.0	.0
JUL	0.1														619	.0	.0	.0
AUG	0.1														620	.0	.0	.0
SEP	0.1														569	.0	.0	.0
OCT	46.4	1.9	1.1	.7										1.7	589	.2	1.6	.7
NOV	66.6	16.7	6.9	7.4	1.6	.7			.2					16.7	569	4.1	9.6	TRACE
DEC	57.7	20.1	11.1	10.2	5.6	1.7	.2	.7	.3					29.1	587	8.1	32.0	.0
ANNUAL	77.9	8.8	4.6	4.1	1.7	.4	.2	.2	.1					11.2	5986	37.1		

1210 WS FORM 0.88.5 (OLI)
III 64

1. NAME OF THE TOLLING STATION
 2. NAME OF THE SERVICE STATION

EXTREME VALUES

MONTHLY SNOWFALL

FROM DAILY OBSERVATIONS

STATION NAME STATION NAME YEARS

TOTAL MONTHLY SNOWFALL IN INCHES

MONTH YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ALL MONTHS
1													
2	18.4	4.7	0.0	TRACE	0.0								
3	17.9	4.5	1.8	1.3									
4	18.4	23.3	18.5	TRACE	TRACE								
5	4.7	TRACE	13.5	TRACE	TRACE								
6	1.7	2.8	4.9	2.5									
7	17.7	4.9	4.7	1.2									
8	4.4	14.2	7.7	5.3									
9	11.0	18.9	17.4	4.7	0.2								
10	5.4	5.3	8.2	TRACE	0.1								
11	0.0	1.3	1.9	TRACE									
12	1.1	11.4	2.7	7.4									
13	0.0	10.4	1.1	1.7									
14	0.0	0.3	1.9	1.4									
15	0.0	0.1	TRACE	0.5									
16	14.0	TRACE	TRACE	7.7									
17	10.1	10.2	7.7	TRACE									
18	24.4	8.0	4.5	TRACE	TRACE								
19	11.4	2.3	1.2	3.4	TRACE								
20	24.1	5.2	11.2	2.0									
21													
22													
23													
24													
25													
26													
27													
28													
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91													
92													
93													
94													
95													
96													
97													
98													
99													
100													
MEAN	4.67	7.73	5.52	2.12	0.24	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
S. D.	4.375	6.333	5.414	2.792	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
TOTAL OBS.	501	537	559	557	589	574	619	620	550	559	559	557	6234

NOTE * (BASED ON LESS THAN FULL MONTHS)

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

DAILY AMOUNTS

PERCENTAGE FREQUENCY OF
SNOW DEPTH
(FROM DAILY OBSERVATIONS)

106870 GRAFENWOHR AAF DL

62-81

STATION

STATION NAME

YEARS

PRECIP.	AMOUNTS (INCHES)													PERCENT OF DAYS WITH MEASUR- ABLE AMTS	TOTAL NO OF OBS	MONTHLY AMOUNTS (INCHES)		
	NONE	TRACE	01	02-05	06-10	11-25	26-50	51-100	101-250	251-500	501-1000	1001-2000	OVER 2000			MEAN	GREATEST	LEAST
SNOWFALL	NONE	TRACE	01-0.4	0.5-1.4	1.5-2.4	2.5-3.4	3.5-4.4	4.5-6.4	6.5-10.4	10.5-15.4	15.5-25.4	25.5-50.4	OVER 50.4					
SNOW DEPTH	NONE	TRACE	1	2	3	4-6	7-12	13-24	25-36	37-48	49-60	61-120	OVER 120					
JAN	28.3	6.9	4.0	9.4	8.2	22.5	20.5	.2						64.6	551			
FEB	39.8	13.8	9.6	7.1	4.3	11.0	13.4	1.0						46.5	578			
MAR	1.1	8.6	1.8	1.1	1.3	2.7	3.7	.5						18.4	558			
APR	47.7	2.2	.4		.2									.6	507			
MAY	00.0														527			
JUN	0.0														510			
JUL	0.0														557			
AUG	00.0														558			
SEP	00.0														539			
OCT	49.6	.2		.2										.2	558			
NOV	45.2	7.7	4.1	1.3	.6	1.1								7.1	534			
DEC	43.7	16.6	8.7	9.8	3.5	10.0	5.7	1.1						39.7	542			
ANNUAL	51.2	4.7	2.4	2.4	1.5	4.0	3.5	.2						14.1	6449			

NATIONAL METEOROLOGICAL SERVICE
 STATION
 WEATHER SERVICE/MAC

EXTREME VALUES

FROM DAILY OBSERVATIONS

STATION WARRINGTON BAF NL
 STATION NAME

YEARS

DAILY WIND SPEED IN INCHES

MONTH YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ALL MONTHS
1		11	12										11
2		11	12										11
3		11	12										11
4		11	12										11
5		11	12										11
6		11	12										11
7		11	12										11
8		11	12										11
9		11	12										11
10		11	12										11
11		11	12										11
12		11	12										11
13		11	12										11
14		11	12										11
15		11	12										11
16		11	12										11
17		11	12										11
18		11	12										11
19		11	12										11
20		11	12										11
21		11	12										11
22		11	12										11
23		11	12										11
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93		11	12										11
94		11	12										11
95		11	12										11
96		11	12										11
97		11	12										11
98		11	12										11
99		11	12										11
100		11	12										11
MEAN													
S. D.													
TOTAL OBS.													

NOTE * (BASED ON LESS THAN FULL MONTHS)

U S AIR FORCE
ENVIRONMENTAL TECHNICAL
APPLICATIONS CENTER

PART C

SURFACE WINDS

Presented in this part are various tabulations of surface winds as follows:

- *1. Extreme Values - Peak Gusts: Derived from daily observations and presented by individual year and month for the entire period of record available. Speeds are presented in knots, while directions are given in 16 compass points from the beginning of record through June 1968, and in tens of degrees starting in July 1968. The extreme is selected and printed from available peak gusts for each year-month, however an asterisk (*) is printed in the data block if less than 90% (3 or more missing observations) of the peak gusts are available for the month. An ALL MONTHS value is presented when every month of the year has valid observations. Means and standard deviations are also computed when four or more values are present for any column. A total raw count of valid observations is presented for each month and ALL MONTHS.

NOTE: According to Federal Meteorological Handbook No. 1 specifications (formerly Circular N), "peak gust data are recorded only at stations with continuous instantaneous wind-speed recorders."

- *2. Bivariate percentage frequency tabulations: Derived from hourly observations, these tabulations are a percentage frequency of wind directions to 16 compass points and calm by wind speeds (knots) in increments of Beaufort classifications. Percentages are shown by both directions and speed, and in addition the mean wind speed is given for each direction.

A separate category is provided on the form for variable winds, which are reported in some data sources. In these data where light and variable winds are reported with no directions but with speeds given, the speeds will be summarized in the appropriate groups opposite the column headed VRBL.

- a. Three tables are prepared for ALL WEATHER surface winds, all years combined, by: (1) Annual - all hours combined, (2) By month - all hours combined, and (3) By month - by standard 3-hour groups.
- b. A separate annual table is also presented for surface winds meeting INSTRUMENT CLASS conditions as follows: Ceiling 200 through 1400 feet inclusive with visibility equal to or greater than 1/2 mile, and/or visibility 1/2 through 2-1/2 miles inclusive with ceiling equal to or greater than 200 feet.

NOTE: A percentage frequency of ".0" in these tables represents one or more occurrences amounting to less than ".05" percent.

*Values for means and standard deviations do not include measurements from incomplete months.

AL CLIMATOLOGY BRANCH
CLIFF

1950

AT FIVE SEVEN /MAC

EXTREME VALUES

2000 年 11 月 10 日

FROM DAILY OBSERVATIONS

7
STATION

PA624,340 AAF 71

— 4 —

YEARS

TRILLY BEAR CUTS IN KNOTS

MONTH YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ALL MONTHS
1	10.57	10.54	7.7	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
2	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
3	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
4	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
5	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
6	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
7	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
8	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
9	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
10	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
11	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
12	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
13	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
14	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
15	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
16	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
17	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
18	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
19	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
20	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
21	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
22	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
23	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
24	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
25	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
26	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
27	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
28	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
29	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
30	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
31	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
32	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
33	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
34	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
35	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
36	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
37	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
38	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
39	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
40	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
41	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
42	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
43	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
44	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
45	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
46	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
47	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
48	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
49	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
50	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
51	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
52	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
53	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
54	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
55	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
56	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
57	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
58	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
59	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
60	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
61	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
62	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
63	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
64	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
65	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
66	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
67	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
68	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
69	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
70	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
71	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
72	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
73	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
74	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
75	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
76	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
77	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
78	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
79	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
80	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
81	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
82	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
83	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
84	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
85	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
86	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
87	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
88	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
89	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
90	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
91	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
92	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
93	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
94	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
95	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
96	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
97	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
98	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
99	10.54	4.31	7.64	7.95	7.64	4.31	3.5	2.44	4.14	2.4	3.4	3.4	7.4
100	10.54</												

NOTES - (BASED ON LESS THAN FULL MONTHS)

1210 WS FORM 0-88.5 (OLI)

~~BASED ON LESS THAN FULL MONTHS AND ALSO RACIAL~~

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AF WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

STATION 16870 GRAFENWOHR AAF DL STATION NAME 73-81 YEARS JAN MONTH 0000-0200 HOURS (LST) CLASS ALL WEATHER CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.3	.1										.4	2.7
NNE	.3											.3	1.5
NE	.4	.3										.6	2.8
ENE	1.0	1.1	.6									2.8	4.5
E	5.4	3.8	.6									9.8	3.5
ESE	3.0	2.3										5.3	3.1
SE	2.6	.4										3.2	2.5
SSE	1.1	.8										1.9	3.1
S	1.4	1.3										2.6	3.2
SSW	.8	.9										1.6	3.5
SW	.3	1.0	.1									1.4	4.5
WSW	.8	1.0	.8									2.5	5.5
W	3.9	4.5	6.9	1.4	.1							16.9	6.6
WNW	1.6	.9	1.4	.3	.1							4.3	5.8
NW	.1											.6	4.2
NNW	.6											.6	2.6
VARBL			1.3	1.1	.4							2.8	11.6
CALM												42.6	
	23.6	18.8	11.7	2.8	.6							100.0	2.9

TOTAL NUMBER OF OBSERVATIONS 794

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS JAN 1
STATION NAME MONTH
ALL WEATHER CLASS 0300-0500
CONDITION HOURS (LST)

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N		.1										.1	5.0
NNE	.4											.4	1.7
NE	.1	.4	.1									.6	4.6
ENE	.7	1.4	.5									2.6	4.4
E	6.5	2.6	.6									9.7	3.2
ESE	4.1	.6										4.7	2.4
SE	2.9	.7										3.6	2.8
SSE	1.1	.6	.1									1.9	3.3
S	1.1	1.2	.2									2.5	3.7
SSW	.7	1.1										1.9	3.9
SW	.7	.6		.1								1.5	4.2
WSW	.7	1.1	.6	.2								2.7	5.7
W	.5	4.6	5.5	2.5	.1							16.2	7.0
WNW	1.4	.9	1.6	.5								4.4	6.2
NW	.4	.7	.6									1.7	5.5
NNW	.5	.5		.1								1.1	5.0
VARBL			.9	.7	.1	.1						1.9	11.7
CALM												42.4	
	24.9	17.3	10.8	4.2	.2	.1						100.0	2.9

TOTAL NUMBER OF OBSERVATIONS 804

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AF WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6873 GRAFENWOHR AAF DL 73-81 JAN
STATION STATION NAME YEARS MONTH
ALL WEATHER
CLASS
CONDITION
0600-0800
HOURS (LST)

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.4	.5	.1									1.0	3.9
NNE	.1											.1	2.0
NE	.4	.2	.1									.7	3.7
ENE	1.5	.6	.6									2.7	4.4
E	4.7	3.2	.6	.1								8.6	3.6
ESE	5.4	1.2										6.7	2.4
SE	3.1	1.1										4.2	2.6
SSE	1.8	.2	.1									2.2	2.8
S	1.1	1.6	.1									2.8	3.7
SSW	1.0	.6										1.6	3.1
SW	.7	.1	.2									1.1	3.6
WSW	1.5	2.1	.4	.1								4.1	4.8
W	3.3	3.6	5.2	2.7	.4							15.1	7.2
WNW	.6	2.0	1.1	.5								4.2	6.5
NW	.4	.2	.4	.1								1.1	5.8
NNW	1.2	.1		.1								1.5	2.9
VARBL		.1	.6	1.6		.1						2.5	12.7
CALM												39.8	
	27.2	17.6	9.6	5.3	.4	.1						100.0	3.0

TOTAL NUMBER OF OBSERVATIONS 612

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS JAN NORTH
ALL WEATHER CLASS 0900-1100 HOURS (L & T)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.1	.4	.1									.6	4.6
NNE	.1											.1	2.0
NE	.6	.4	.1									1.1	3.4
ENE	1.0	2.1	.5									3.6	4.4
E	4.8	3.1	.7									8.6	3.7
ESE	6.8	2.5	.2									9.5	2.9
SE	2.8	1.6										4.4	3.1
SSE	1.8	.2	.1									2.2	2.5
S	1.5	2.2	.4									4.1	4.0
SSW	1.1	.9	.1									2.1	3.6
SW	1.0	1.1	.2									2.3	3.9
WSW	1.1	2.0	1.5	.2								4.8	5.6
W	3.0	4.4	3.9	2.7	.1							14.1	6.9
WNW	.5	1.1	2.0	1.2	.1							4.9	8.4
NW	.7	1.2	.9	.1								3.0	5.6
NNW	.1	.4	.1									.6	4.4
VARBL			1.0	1.5	.4							2.8	12.5
CALM												31.1	
	27.1	23.5	11.9	5.8	.6							100.0	3.5

TOTAL NUMBER OF OBSERVATIONS 813

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

STATION 16877 GRAFENWOHR AAF DL STATION NAME 73-81 YEARS JAN NORTH 1200-1400 HOURS (LST)

ALL WEATHER CLASS

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.2	.1										.4	3.0
NNE	.2											.2	2.0
NE	.6	.9										1.5	3.8
ENE	1.4	2.5	.9									4.7	4.5
E	2.7	2.2	2.1									7.0	5.0
ESE	4.7	3.7	.5									8.9	3.5
SE	3.8	1.6	.1									5.5	3.0
SSE	1.8	1.6										3.4	3.1
S	2.6	2.0	.6	.1								5.3	4.1
SSW	1.2	2.0	.4	.1								3.7	4.3
SW	.7	1.2	.9									2.8	5.2
WSW	1.0	1.7	1.8	.4								4.9	6.3
W	1.2	5.2	5.4	3.1	.1							15.0	7.7
WNW	1.1	.7	2.5	1.4								5.7	7.8
NW	1.6	1.5	1.4	.9								5.3	6.3
NNW	.9	.2	.4	.4								1.8	5.9
VARBL			2.1	1.0	.2							3.3	10.3
CALM												20.5	
	25.8	27.1	18.9	7.3	.4							100.0	4.4

TOTAL NUMBER OF OBSERVATIONS 813

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL STATION NAME 73-81 YEARS JAN NORTH
ALL WEATHER CLASS 1500-1700 HOURS (L S T)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.7	.1										.9	2.6
NNE	.2											.2	2.0
NE	.4	.9										1.2	3.6
ENE	2.1	1.6	.9									4.5	4.3
E	4.1	2.1	1.7									7.9	4.2
ESE	4.9	2.2	.1									7.2	2.9
SE	3.9	1.6	.1									5.7	2.9
SSE	2.2	1.1	.2									3.6	3.3
S	2.9	2.0	.5									5.4	3.7
SSW	1.5	.7	.1									2.3	3.3
SW	1.0	.7	.2									2.0	4.0
WSW	1.2	2.5	.9	.4								4.9	5.5
W	2.5	5.4	6.6	1.2	.1							15.8	6.8
WNW	1.2	1.5	2.6	.5	.1							5.9	6.9
NW	1.2	1.5	.6	.2								3.6	4.9
NNW	.4	.9	.2									1.5	4.3
VARBL		.2	1.6	.7	.1	.2						2.9	11.0
CALM												24.4	
	30.5	24.9	16.5	3.1	.4	.2						100.0	3.8

TOTAL NUMBER OF OBSERVATIONS 814

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS JAN MONTH
ALL WEATHER CLASS 1800-2000 HOURS (LST)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.2	.1										.4	3.0
NNE													
NE	.9	.6										1.5	3.0
ENE	.6	1.7	.6									3.0	5.0
E	6.3	3.9	.5									10.7	3.3
ESE	5.3	1.1	.1									6.5	2.6
SE	1.6	1.0	.4									3.0	3.5
SSE	1.4	.2										1.6	2.5
S	1.8	1.2	.1									3.2	3.3
SSW	.9	1.2	.2									2.3	4.1
SW	.5	.9	.2									1.6	4.4
WSW	1.4	1.2	.5									3.1	4.9
W	3.1	5.2	9.8	1.6	.1							14.8	6.6
WNW	.5	2.3	1.6	.5								4.9	6.7
NW	1.0	.6	.7									2.3	5.1
NNW	.5	.2										.7	3.0
VARBL			2.2	1.4								3.6	10.0
CALM												36.8	
	25.9	21.7	12.1	3.8	.1							100.0	3.1

TOTAL NUMBER OF OBSERVATIONS 812

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

106870 STATION GRAFENWOHR AAF DL 73-81 YEARS JAN MONTH
ALL WEATHER CLASS 2100-2300 HOURS (LST)
CONDITION

SPEED (KNTS) DIR	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.6	.2	.1									.9	3.6
NNE													
NE	.5	.2										.7	2.8
ENE	1.9	1.2	.4									3.5	3.8
E	4.6	4.2	.5									9.3	3.5
ESE	4.7	1.6	.4									6.7	3.1
SE	2.7	1.1	.1									4.0	2.9
SSE	1.0	.2	.1									1.4	2.8
S	1.2	1.4	.1									2.7	4.0
SSW	1.2	.7	.6									2.6	4.3
SW	1.1	1.0										2.1	3.7
WSW	1.1	.6	.5	.1								2.3	4.4
W	2.7	4.2	5.1	1.2	.1							13.3	6.7
WNW	1.0	2.1	1.4	.6								5.1	6.2
NW	.9	.6	.5									2.0	4.4
NNW	.7	.4	.1	.1								1.4	4.4
VARBL			.9	1.5	.5							2.8	12.6
CALM												39.3	
	26.0	19.8	13.8	3.6	.6							100.0	3.0

TOTAL NUMBER OF OBSERVATIONS 809

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIP WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

JAN
MONTH

ALL WEATHER
CLASS

ALL
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.3	.2	.0									.6	3.5
NNE	.2											.2	1.8
NE	.5	.5	.0									1.0	3.5
ENE	1.3	1.5	.6									3.4	4.4
E	4.9	3.1	.9	.0								8.9	3.7
ESE	4.9	1.9	.2									6.9	2.9
SE	2.9	1.1	.1									4.2	2.9
SSE	1.5	.6	.1									2.3	3.0
S	1.7	1.6	.3	.0								3.6	3.8
SSW	1.1	1.0	.2	.0								2.3	3.8
SW	.8	.8	.2	.0								1.9	4.3
WSW	1.1	1.5	.9	.2								3.7	5.3
W	2.9	4.6	5.4	2.1	.2							15.2	6.9
WNW	1.0	1.4	1.8	.7	.0							4.9	6.9
NW	.8	.9	.6	.2								2.5	5.4
NNW	.6	.3	.1	.1								1.2	4.3
VARBL	.0	.0	1.3	1.2	.2	.1						2.8	11.4
CALM												34.6	
	26.4	21.3	12.8	4.4	.4	.1						100.0	3.3

TOTAL NUMBER OF OBSERVATIONS 6471

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

106870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

FEB
MONTH

ALL WEATHER
CLASS

0000-0200
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.2	.1	.1									1.3	3.4
NNE	.3	.5										.8	3.3
NE	1.3	.7										2.0	2.6
ENE	1.4	2.5	.5	.1								4.6	4.6
E	5.6	4.9	1.2	.1								11.8	4.0
ESE	1.8	.9	.5									3.3	3.8
SE	1.0	.5										1.6	3.1
SSE	.3	.4										.7	3.4
S	.8	1.4	.4									2.6	4.7
SSW	.3	.1	.4									.8	4.8
SW	.9	.9	.1									2.0	4.1
WSW	1.0	1.2	.7	.3								3.1	4.9
W	1.7	5.8	2.0	1.2								10.6	6.0
WNW	.7	.3	.3									1.2	4.1
NW	.8	.7	.1									1.6	3.7
NNW	.8	.8										1.6	3.4
VARBL			1.2	.4	.1							1.7	9.8
CALM												48.8	
	19.8	21.7	7.5	2.1	.1							100.0	2.4

TOTAL NUMBER OF OBSERVATIONS 762

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

16970
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

FEB
MONTH

ALL WEATHER
CLASS

0300-0500
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.7	.4										1.1	2.9
NNE	1.1	.7										1.7	2.7
NE	.9	1.1	.1									2.1	3.9
ENE	2.1	.9	.5									3.5	3.9
E	4.2	5.7	2.2	.1								12.2	4.7
ESE	2.5	1.2	.3									3.9	3.2
SE	1.4	.1										1.6	2.2
SSE	.3	.4	.3									.9	4.1
S	.5	.7										1.2	3.2
SSW	.5	.3										.8	2.3
SW	.8	.7	.8									2.2	5.3
WSW	1.1	1.2	1.2	.1								3.5	5.4
W	2.6	3.9	3.4	.5								10.5	5.7
WNW	.5	.3	.4									1.2	4.4
NW	1.3	.5										1.8	2.9
NNW	1.2	.1										1.3	2.0
VARBL			1.4	.1								1.6	8.3
CALM												48.8	
	21.7	18.0	10.6	.9								100.0	2.3

TOTAL NUMBER OF OBSERVATIONS 761

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

FEB
MONTH

ALL WEATHER
CLASS

0600-0800
HOURS (L S T)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	.1										.9	3.0
NNE	.7	.1										.9	2.8
NE	.8	.8	.1									1.7	3.8
ENE	1.6	2.0	1.0									4.6	4.7
E	4.5	4.7	1.7	.1								11.0	4.6
ESE	4.2	1.2										5.4	2.6
SE	1.2	.3	.3									1.7	3.7
SSE	.5	.1	.4									1.0	4.8
S	.9	.5	.4									1.8	4.0
SSW	.7	.3										.9	2.6
SW	.7	.1	.8									1.6	5.1
WSW	1.2	1.7	1.3	.1								4.3	5.3
W	2.5	3.7	2.6	.5								9.3	5.6
WNW	.9	.4	.8									2.1	4.5
NW	1.2	.9										2.1	3.1
NNW	.1	.4										.5	3.3
VARBL			1.3	.3								1.6	9.3
CALM												48.6	
	22.3	17.3	10.8	1.0								100.0	2.3

TOTAL NUMBER OF OBSERVATIONS

762

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

FEB
MONTH

ALL WEATHER
CLASS

0900-1100
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.4											.4	1.7
NNE	.7	.4	.1									1.2	3.8
NE	.9	.8										1.7	3.3
ENE	1.3	2.1	1.3									4.7	5.3
E	3.5	5.5	3.2									12.2	5.1
ESE	4.1	1.8	.3									6.2	3.1
SE	2.4	1.1	.3									3.7	3.3
SSE	1.1	.4	.4									1.8	4.3
S	2.2	.7	.3	.3								3.4	3.8
SSW	1.3	1.1	.1									2.5	3.7
SW	.7	.4										1.1	3.6
WSW	.9	2.0	1.6	.5								5.0	6.1
W	2.8	5.1	3.9	1.2								13.0	6.1
WNW	.8	.7	1.7	.3								1.4	6.6
NW	1.1	1.2	.3									2.5	4.5
NNW	.8	.8	.3									1.8	4.2
VARBL			3.0	.4								3.4	8.5
CALM												31.9	
	24.8	23.9	16.7	2.6								100.0	3.4

TOTAL NUMBER OF OBSERVATIONS

761

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

16670 STATION GRAFENWOHR AAF DL 73-81 YEARS FEB NORTH
ALL WEATHER CLASS 1230-1400 HOURS (LST)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.4	.7	.3									1.3	4.2
NNE	.4	.5	.4									1.3	4.9
NE	1.2	1.3	.3									2.8	3.8
ENE	2.0	2.2	1.8	.1								6.2	5.1
E	2.2	5.8	1.6	.4								10.0	5.1
ESE	4.6	3.0	1.4									9.1	4.1
SE	3.3	1.8	1.2									6.3	4.1
SSE	1.8	2.0	.7									4.5	4.1
S	2.2	2.0	.9	.1								5.2	4.5
SSW	1.4	.7	.3									2.4	3.4
SW	.4	.9	.5									1.8	5.2
WSW	.7	2.2	1.0	.5								4.5	6.1
W	1.8	4.5	6.0	1.3								13.6	7.1
WNW	1.3	2.0	2.2									5.5	5.9
NW	1.3	1.4	1.6	.5								4.9	6.1
NNW	1.0	.5	.5									2.1	4.3
VARBL			3.9	.9								4.9	9.2
CALM												13.8	
	26.1	31.5	24.7	3.9								100.0	4.7

TOTAL NUMBER OF OBSERVATIONS 762

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

FEB
MONTH

ALL WEATHER
CLASS

1500-1700
HOUSE 1L 5 Y 1

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.0	.5	.7									2.2	4.7
NNE	.7	.4	.4									1.4	4.5
NE	1.6	1.6	.4									3.5	3.9
ENE	2.5	3.9	1.6									8.0	4.7
E	2.1	5.9	1.0	.5								9.6	5.2
ESE	2.5	3.4	.8									6.7	4.0
SE	2.6	2.4	1.0									6.0	4.0
SSE	1.6	1.0	.5									3.1	4.1
S	2.5	.7	.1									3.3	3.0
SSW	1.7	.8	.3	.3								3.0	4.2
SW	1.2	1.6	.7	.4								3.8	5.2
WSW	1.4	1.7	1.7	.3								5.1	5.6
W	1.3	4.9	5.0	.9								12.1	6.7
WNW	.7	2.6	1.8	.5								5.6	6.5
NW	1.2	2.5	1.2	.1								5.0	5.2
NNW	2.1	.9	.4									3.4	3.4
VARBL		.1	2.8	.8								3.7	8.9
CALM												14.3	
	26.6	34.9	20.3	3.8								100.0	4.4

TOTAL NUMBER OF OBSERVATIONS

762

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1-5870 STATION 1-5870 GRAFENWOHR AAF DL 73-81 YEARS FEB MONTH 1902-2000 HOURS (L & T)
ALL WEATHER CLASS
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.4	.9										2.4	2.9
NNE	.1	.3	.1									.5	4.8
NE	1.8	.9	.1									2.9	3.2
ENE	2.8	2.5	1.2									6.4	4.1
E	4.6	5.1	2.1	.1								11.9	4.6
ESE	2.8	2.4	.5									5.6	3.8
SE	.5	.3	.1									.9	4.7
SSE	1.6	.1	.1									1.8	2.6
S	.5	.4	.3	.1								1.3	4.6
SSW	.9	.9	.3									2.1	3.9
SW	1.3	.8	.7									2.8	4.2
WSW	2.0	1.6	.4	.3								4.2	4.2
W	3.1	4.2	3.3	.3								10.9	5.3
WNW	.8	.9		.1								1.8	4.4
NW	1.0	.8	.4									2.2	3.8
NNW	2.2	.7	.1									3.0	2.7
VARBL			1.7	.3								2.2	8.6
CALM												37.1	
	27.6	22.7	11.4	1.2								100.0	2.7

TOTAL NUMBER OF OBSERVATIONS 762

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

16870 GRAFENWOHR AAF OL 73-81 FEB
STATION STATION NAME YEARS MONTH
ALL WEATHER
CLASS
CONDITION
2100-2300
HOURS (L.S.T.)

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	N	MEAN WIND SPEED
N	1.2	.7	.1									1.8	3.5
NNE	.4	.7										1.0	4.3
NE	1.4	.5	.3									2.2	3.4
ENE	2.1	2.6	.8									5.5	4.3
E	4.2	7.2	1.6	.1								13.1	4.4
ESE	2.5	1.6										4.1	3.0
SE	.9											.9	2.4
SSE	.7	.5	.1	.1								1.4	4.6
S	.7	.4	.1	.1								1.3	4.6
SSW	.5	1.6	.4									2.5	4.9
SW	.8	.8										1.6	3.4
WSW	1.3	1.7		.5								3.5	4.9
W	2.4	6.2	2.0	.4	.1							11.0	5.6
WNW	1.3	.5	.1									2.0	3.1
NW	1.2	.4	.1									1.7	3.5
NNW	.8	.5	.1									1.4	3.5
VARBL			1.2	.5								1.7	9.6
CALM												43.0	
	22.2	25.9	7.0	1.8	.1							100.0	2.6

TOTAL NUMBER OF OBSERVATIONS 762

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIP WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

STATION 1 6870 STATION NAME GRAFENWOHR AAF DL YEARS 73-81 MONTH FEB
 ALL WEATHER CLASS ALL
 CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.9	.4	.1									1.4	3.6
NNE	.5	.4	.1									1.1	3.9
NE	1.2	1.0	.2									2.4	3.5
ENE	2.0	2.3	1.1	.0								5.4	4.6
E	3.9	5.6	1.8	.2								11.5	4.7
ESE	3.1	1.9	.5									5.5	3.5
SE	1.7	.8	.4									2.8	3.6
SSE	1.0	.6	.3	.0								1.9	4.0
S	1.3	.8	.3	.1								2.5	4.0
SSW	.9	.7	.2	.0								1.9	3.9
SW	.8	.8	.4	.0								2.1	4.6
WSW	1.2	1.7	1.0	.3								4.2	5.4
W	2.3	4.8	3.5	.8	.0							11.4	6.1
WNW	.9	1.0	.9	.1								2.9	5.5
NW	1.1	1.1	.5	.1								2.7	4.5
NNW	1.1	.6	.2									1.9	3.4
VARBL		.0	2.1	.5	.0							2.6	9.0
CALM												35.8	
	23.9	24.5	13.6	2.2	.0							100.0	3.1

TOTAL NUMBER OF OBSERVATIONS 6094

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL STATION NAME 73-81 YEARS MAR NORTH
ALL WEATHER CLASS 0000-0200 HOURS (LST)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.6	.4										1.0	3.3
NNE	.4	.4										.7	3.5
NE	1.9	.6	.4									2.9	3.6
ENE	1.9	3.2	.7	.1								6.0	4.5
E	5.3	2.0	.6									7.9	3.2
ESE	1.6											1.6	1.6
SE	.6											.6	1.8
SSE	.4	.2										.6	3.4
S	1.0	1.1	.1									2.2	3.9
SSW	.5	.2	.2									1.2	3.9
SW	1.3	.5	.4	.4								2.5	4.7
WSW	.8	1.4	1.0									3.2	5.5
W	2.2	4.4	1.6	.2								8.4	5.1
WNW	1.0	1.4	.8	.1								3.3	5.1
NW	.8	.7	.4									1.9	4.0
NNW	1.2	.2	.1									1.6	3.0
VARBL		.1	1.6	.2								1.9	8.6
CALM												52.9	
	21.3	17.0	7.8	1.1								100.0	2.0

TOTAL NUMBER OF OBSERVATIONS 837

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

MAP
NORTH

ALL WEATHER
CLASS

3300-0500
HOURS (L & T)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.1	.1										1.2	2.6
NNE	.2	.2										.5	3.8
NE	1.1	.5		.1								1.8	3.9
ENE	1.2	2.4	1.3									4.9	4.9
E	3.9	2.4	.7									7.0	3.5
ESE	2.6	.6										3.2	2.4
SE	1.0	.1										1.1	2.4
SSE	.2	.2										.5	3.0
S	1.1	.6										1.7	3.1
SSW	.4	.4	.1									.8	4.3
SW	1.3	.6	.1									2.0	3.4
WSW	1.3	1.6	1.1	.2								4.2	5.5
W	3.6	4.1	2.0	.7	.1							10.5	5.1
WNW	.5	2.0	1.1	.2								3.8	6.0
NW	1.0	.6	.1	.2								1.9	4.6
NNW	1.0	.1	.1									1.2	2.8
VARBL			.8	.5								1.3	9.4
CALM												52.3	
	21.4	16.5	7.6	2.0	.1							100.0	2.1

TOTAL NUMBER OF OBSERVATIONS 837

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

MAR
MONTH

ALL WEATHER
CLIM

0600-0800
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	.2	.2									1.3	3.5
NNE	.6	.2										.8	2.6
NE	.8	.6	.2									1.7	4.1
ENE	2.7	2.0	1.0	.1								5.9	4.2
E	3.2	4.7	1.1	.1								9.1	4.3
ESE	2.5	.5										3.0	2.5
SE	1.6	1.0										2.5	2.9
SSE	.4	.7										1.1	3.8
S	1.1	.4	.5									1.9	4.0
SSW	1.0	.2										1.2	2.5
SW	1.2	1.2	.1									2.5	3.7
WSW	.8	2.0	.4	.2								3.5	5.2
W	2.6	4.2	3.7	1.0								11.5	5.9
WNW	1.0	1.9	1.1	.5								4.4	6.4
NW	.7	.1	.2	.1								1.2	4.9
NNW	.2	.2	.4									.8	5.1
VARBL			1.3	.4								1.7	8.6
CALM												46.0	
	21.3	20.2	10.2	2.6								100.0	2.5

TOTAL NUMBER OF OBSERVATIONS 837

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

16870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

MAR
MONTH

ALL WEATHER
CLASS

0900-1100
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	MEAN WIND SPEED
N	.5	.8	.2									1.6
NNE	.5	.2	.2									1.0
NE	.7	1.1	.5	.2								2.5
ENE	1.6	1.7	1.7	.1								5.0
E	3.7	4.8	2.2									10.6
ESE	3.9	1.8	1.2									6.9
SE	2.8	1.8	.4									4.9
SSE	1.0	1.2	.5									2.6
S	1.7	2.6	.4	.2								4.9
SSW	1.0	1.0	.6									2.5
SW	1.2	1.1	.6									2.9
WSW	1.4	2.2	2.2	.4								6.1
W	1.3	3.2	5.3	1.4								11.2
WNW	.6	1.6	2.6	1.2								6.0
NW	1.0	1.2	1.4	.4								3.9
NNW	1.0	1.0	.1									2.0
VARBL		.2	3.5	1.6	.1							5.4
CALM												19.9
	23.7	27.4	23.4	5.5	.1							100.0

TOTAL NUMBER OF OBSERVATIONS

836

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS MAR MONTH
1230-1400 HOURS (LST)
ALL WEATHER CLASS
CONDITION

SPEED (KNTS) DIR	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.5	1.7	.2									1.7	4.4
NNE	.1	1.0	.2									1.3	5.4
NE	.6	1.3	1.4									3.3	5.6
ENE	1.3	2.0	1.7	.2								4.9	6.1
E	1.2	3.7	1.9	.1								6.9	5.6
ESE	2.5	3.2	1.4									7.2	4.6
SE	2.2	3.1	.4									5.6	4.1
SSE	.7	1.8	.7									3.2	5.0
S	1.1	3.2	1.0	.1								5.4	5.0
SSW	1.1	3.1	.8	.1								5.1	5.1
SW	.4	1.4	.8									2.6	5.6
WSW	1.2	1.4	2.0	.7								5.4	6.9
W	1.3	4.3	6.6	1.6								13.7	7.4
WNW	.8	2.0	4.4	1.3								8.6	7.7
NW	.6	1.7	1.9	1.0	.1							5.3	7.4
NNW	.4	1.1	.5	.4								2.3	6.4
VARBL		.2	8.2	1.9								10.4	9.5
CALM												7.0	
	15.5	35.6	34.3	7.4	.1							100.0	6.0

TOTAL NUMBER OF OBSERVATIONS 837

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

1 687J
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

MAR
MONTH

ALL WEATHER
CLASS

1500-1700
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.6	1.1	.4									2.0	4.5
NNE	.2	.6	.2									1.1	5.3
NE	1.0	1.0	1.4									3.3	5.6
ENE	1.4	2.5	1.8									5.7	5.3
E	2.3	5.0	1.8	.1								9.2	4.9
ESE	2.4	3.0	.8									6.2	4.3
SE	3.0	2.0	.2									5.3	3.6
SSE	2.4	1.4	.2									4.1	3.4
S	1.6	2.3	.6									4.4	4.4
SSW	1.8	1.9	.2									3.9	3.9
SW	.7	1.6	.6	.1								3.0	5.0
WSW	1.3	2.3	2.2	.2								6.0	5.7
W	1.6	6.1	6.0	1.4	.1							15.2	7.0
WNW	1.1	2.5	2.9	.7	.1							7.3	7.1
NW	1.2	1.3	1.6	.4								4.4	5.9
NNW	1.6	.8	1.4									3.8	5.1
VARBL		.5	5.4	2.6								8.5	9.5
CALM												6.6	
	24.0	35.8	27.7	5.6	.2							100.0	5.4

TOTAL NUMBER OF OBSERVATIONS

837

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AID WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

HAR
MONTH

ALL WEATHER
CLASS

1800-2000
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.7	.7	.1									2.5	3.2
NNE	.4	.7	.2	.1								1.4	5.4
NE	1.7	1.6	.2	.1								3.6	4.0
ENE	1.6	2.3	1.0	.2								5.0	5.1
E	3.7	3.6	1.6	.4								9.2	4.5
ESE	3.1	1.1										4.2	2.5
SE	1.3											1.3	2.4
SSE	.8	.2										1.1	3.0
S	1.6	.4	.1									2.0	3.1
SSW	1.6	.6	.1									2.3	3.2
SW	1.2	.6										1.8	2.9
WSW	2.6	2.0	.1	.2								5.0	4.0
W	4.7	4.3	2.5	.4								11.8	4.9
WNW	.8	2.6	1.2	.5								5.1	5.8
NW	.7	.2	.1									1.1	3.3
NNW	2.0	.8										2.9	2.8
VARBL	.1	.2	1.4	.2								2.0	8.2
CALM												37.6	
	29.5	22.0	8.7	2.2								100.0	2.7

TOTAL NUMBER OF OBSERVATIONS

836

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

16870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

MAR
MONTH

ALL WEATHER
CLASS

2100-2300
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.1	.4										1.4	2.7
NNE	.7	.1										.8	2.4
NE	1.1	1.2	.2									2.5	3.8
ENE	2.0	2.8	.7	.2								5.7	4.5
E	4.7	3.4	1.7	.1								9.8	4.0
ESE	1.6	.2										1.8	1.9
SE	.2											.2	2.0
SSE	.8	.1										1.0	2.1
S	.8	.7										1.6	3.7
SSW	.1	.1	.4	.1								.7	6.7
SW	.7	.6	.5	.1								1.9	4.7
WSW	1.0	1.7	.7									3.4	4.9
W	4.6	3.1	1.6									9.2	4.1
WNW	1.1	1.7	1.0	.7								4.4	6.4
NW	.5	.4	.2									1.1	4.3
NNW	.8	.2										1.1	2.2
VARBL		.2	.7	.4								1.3	9.2
CALM												52.0	
	21.8	16.9	7.7	1.7								100.0	2.1

TOTAL NUMBER OF OBSERVATIONS 835

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

MAR
MONTH

ALL WEATHER
CLASS

ALL
HOURS (L & T)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.9	.6	.1									1.6	3.6
NNE	.4	.4	.1	.0								1.0	4.3
NE	1.1	1.0	.6	.1								2.7	4.6
ENE	1.7	2.4	1.2	.1								5.4	5.0
E	3.5	3.7	1.4	.1								8.7	4.3
ESE	2.5	1.3	.4									4.3	3.4
SE	1.6	1.0	.1									2.7	3.4
SSE	.8	.7	.2									1.8	3.8
S	1.2	1.4	.3	.0								3.0	4.3
SSW	.9	.9	.3	.0								2.2	4.3
SW	1.0	.9	.4	.1								2.4	4.4
WSW	1.3	1.8	1.2	.3								4.6	5.5
W	2.7	4.2	3.6	.8	.0							11.4	6.0
WNW	.9	2.0	1.9	.7	.0							5.4	6.7
NW	.8	.8	.7	.3	.0							2.6	5.8
NNW	1.0	.6	.3	.0								2.2	4.1
VARBL	.0	.2	2.9	1.0	.0							4.1	9.3
CALM												34.3	
	22.3	23.9	15.9	3.5	.1							100.0	3.4

TOTAL NUMBER OF OBSERVATIONS 6692

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

APR
MONTH

ALL WEATHER
CLASS

0000-0700
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	MEAN WIND SPEED
N	1.1	.1										1.3
NNE	.4	.8										1.1
NE	1.8	1.8	.5									4.0
ENE	1.9	1.5	.1									3.5
E	1.5	.9	.3									2.6
ESE	.4	.4										.8
SE	.1											.1
SSE	.5											.5
S	.5	.5										1.0
SSW		.4										.4
SW	.4	.4										.8
WSW	2.0	1.4	.4									3.8
W	3.3	2.4	2.4	.4								8.4
WNW	.6	2.0	.3	.1								3.0
NW	1.9	1.3	.4	.1								3.7
NNW	1.8	1.0	.4									3.2
VARBL		.1	.5	.3								.9
CALM												60.9
	18.2	14.9	5.2	.9								100.0

TOTAL NUMBER OF OBSERVATIONS 793

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

APR
MONTH

ALL WEATHER
CLASS

0300-0500
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.3	1.1	.3									2.6	3.6
NNE	.5	.8	.1									1.4	3.8
NE	1.5	1.6	.1									3.3	3.6
ENE	1.3	1.5	.5									3.3	4.0
E	1.5	.5										2.0	2.8
ESE	1.3											1.3	1.9
SE	.4											.4	1.3
SSE	.3		.1									.4	4.0
S	.6		.1									.8	2.7
SSW	.5	.6										1.1	3.4
SW	.5	.1	.1									.8	3.8
WSW	.9	.9	.3									2.0	3.7
W	2.8	2.5	2.0	.5								7.8	5.4
WNW	1.0	2.6	.1									3.8	4.1
NW	1.3	1.3	.9									3.4	4.6
NNW	.9	1.0	.1									2.0	3.6
VARBL			.4	.4								.8	11.7
CALM												62.9	
	16.4	14.6	5.2	.9								100.0	1.6

TOTAL NUMBER OF OBSERVATIONS

793

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS APR NORTH
ALL WEATHER CLASS 0600-0800 HOURS (LST)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.5	1.1	.3									1.9	4.3
NNE	.8	.4	.1									1.3	3.3
NE	1.6	1.9	.9									4.4	4.8
ENE	1.8	1.6	.8	.3								4.4	4.9
E	2.6	1.0	.3	.1								4.0	3.2
ESE	2.3	.4										2.6	2.2
SE	.3	.1										.4	2.7
SSE	.1	.4										.5	4.0
S	1.1	.4	.4									1.9	3.9
SSW	.5	1.0										1.5	4.3
SW	.5	.6	.3									1.4	4.3
WSW	1.9	1.5	.8									4.1	4.4
W	2.0	3.8	1.4	.6	.1							7.9	5.8
WNW	.6	1.5	.9	.3								3.3	5.8
NW	2.5	2.3	.9	.1								5.8	4.4
NNW	2.3	1.6	.1									4.0	3.4
VARBL			.8	.4	.1							1.3	9.9
CALM												49.4	
	21.3	19.6	7.7	1.8	.3							100.0	2.3

TOTAL NUMBER OF OBSERVATIONS 797

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

APR
MONTH

ALL WEATHER
CLASS

0900-1100
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	2.1	1.5	.6									4.3	3.9
NNE	1.3	1.6	.5	.1								3.5	4.6
NE	1.1	1.6	1.0									3.8	5.0
ENE	1.0	3.9	2.3	.1								7.3	5.7
E	2.3	4.5	1.8	.4								8.9	5.4
ESE	2.9	2.5	.1	.1								5.6	3.6
SE	2.4	1.9	.3									4.5	3.5
SSE	1.1	.1	.3	.1								1.6	4.0
S	1.0	1.4	.3	.1								2.8	4.8
SSW	.8	.9	.6	.1								2.4	5.8
SW	.5	1.3	.6	.1								2.5	5.8
WSW	.8	1.9	1.6	.1								4.4	6.1
W	1.9	3.8	4.4	1.3								11.3	6.7
WNW	1.1	2.9	2.8	.9	.4							8.0	7.2
NW	1.4	2.3	2.0	.6								6.3	6.1
NNW	.9	1.8	.5	.1								3.3	4.9
VARBL		.1	6.1	1.1	.3							7.6	9.1
CALM												12.3	
	22.4	33.8	25.6	5.4	.6							100.0	5.1

TOTAL NUMBER OF OBSERVATIONS 800

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

16870 STATION GRAFENWOHR AAF DL 73-81 YEARS APR MONTH
1200-1400 HOURS (L.S.T.)
ALL WEATHER CLASS
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.0	2.2	1.2									4.5	5.3
NNE	2.1	1.4	.9									4.4	4.4
NE	1.2	2.1	.6									4.0	4.8
ENE	.9	2.6	1.0	.6								5.1	6.0
E	1.6	3.2	1.5									6.4	5.0
ESE	1.9	3.1	1.2	.1								6.4	5.0
SE	.4	1.5	1.0	.1								3.0	6.3
SSE	1.1	.5	.2									1.9	3.6
S	1.5	1.9	1.5									4.9	5.1
SSW	1.0	.5	.4									1.9	4.1
SW	.4	1.7	1.1									3.2	5.8
WSW	1.0	2.7	2.9	.1								6.7	6.1
W	2.0	4.1	4.4	2.1								12.6	7.1
WNW	1.4	3.7	3.6	1.4	.1							10.2	7.1
NW	1.1	1.9	2.6	.4								6.0	6.5
NNW	.5	1.6	.9	.2								3.2	6.1
VARBL	.1	.2	9.9	1.0								11.2	8.8
CALM												4.4	
	19.2	35.2	35.0	6.1	.1							100.0	5.9

TOTAL NUMBER OF OBSERVATIONS 801

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

16870 STATION GRAFENWOHR AAF DL STATION NAME 73-81 YEARS APR MONTH
ALL WEATHER CLASS 1500-1700 HOURS (LST)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.3	3.8	1.1									6.2	4.9
NNE	2.0	2.3	.3									4.5	3.8
NE	1.4	1.8	1.1	.3								4.5	5.4
ENE	1.1	2.0	2.4									5.5	5.9
E	1.9	4.1	2.1									8.2	5.4
ESE	.9	2.6	.6	.3								4.4	5.4
SE	.9	1.3	.5									2.6	4.7
SSE	.9	.5	.3									1.6	3.7
S	1.1	2.0	.3									3.4	4.3
SSW	1.3	1.0	.4									2.6	4.0
SW	.4	1.8	.6	.1								2.9	5.5
WSW	.8	2.5	1.4	.1								4.8	5.8
W	1.8	5.2	7.7	1.6	.1							16.3	7.1
WNW	1.3	3.5	3.1	1.1								9.0	6.6
NW	.6	1.9	2.3	.8								5.5	7.5
NNW	1.8	2.5	1.6	.1								6.0	5.3
VARBL			5.3	1.0	.3							6.5	9.2
CALM												5.3	
	19.2	38.7	31.0	5.4	.4							100.0	5.7

TOTAL NUMBER OF OBSERVATIONS 796

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

16870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

APR
MONTH

ALL WEATHER
CLASS

1800-2000
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	4.3	3.3	.4									8.0	3.5
NNE	2.3	2.0	.3									4.6	3.8
NE	3.0	1.8	.8									5.6	3.7
ENE	2.4	2.1	.4									4.9	3.9
E	4.0	2.5	.5									7.1	3.5
ESE	1.1	.8	.1									2.0	3.3
SE	.5	.5										1.0	3.8
SSE	.5	.3										.8	3.2
S	1.1	.5										1.6	2.9
SSW	1.6		.1									1.8	2.3
SW	.8	.8										1.5	3.2
WSW	1.6	.9	1.0									3.5	4.9
W	2.7	6.4	3.9	.5								13.5	5.7
WNW	1.8	2.7	1.8	.5	.1							6.8	5.8
NW	1.4	1.3	1.4	.1								4.2	5.6
NNW	2.1	2.0	.6									4.8	3.8
VARBL		.1	1.3	.8								2.1	9.4
CALM												26.2	
	31.4	27.9	12.5	1.9	.1							100.0	3.3

TOTAL NUMBER OF OBSERVATIONS 791

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

106870 STATION GRAFENWOHR AAF DL 73-81 YEARS APR MONTH
ALL WEATHER CLASS 2100-2300 HOURS (LST)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.3	1.1	.3									2.7	3.4
NNE	1.9	.9	.1									2.8	2.8
NE	2.0	1.9	.1									4.0	3.3
ENE	1.9	2.5	.9									5.3	4.5
E	3.0	1.4										4.4	2.9
ESE		.4										.4	4.7
SE													
SSE	.1	.1										.3	3.5
S	.8											.8	2.2
SSW	.9	.1										1.0	2.8
SW	.9	.4										1.3	3.1
WSW	1.6	.8	.1									2.5	3.1
W	2.8	4.7	1.9	.1								9.5	4.8
WNW	.9	1.1	1.4	.1								3.5	5.9
NW	.9	1.5	.5	.1								3.0	4.8
NNW	2.4	1.5	.3									4.2	3.3
VARBL			.5	.5								1.0	10.4
CALM												53.4	
	21.3	18.3	6.1	.9								100.0	1.9

TOTAL NUMBER OF OBSERVATIONS 792

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

106877
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

APR
MONTH

ALL WEATHER
CLASS

ALL
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.6	1.8	.5									3.9	4.1
NNE	1.4	1.2	.3	.0								2.9	3.9
NE	1.7	1.8	.6	.0								4.2	4.3
ENE	1.5	2.2	1.0	.1								4.9	5.0
E	2.3	2.3	.8	.1								5.5	4.3
ESE	1.3	1.3	.3	.1								2.9	4.1
SE	.6	.7	.2	.0								1.5	4.4
SSE	.6	.2	.1	.0								.9	3.6
S	1.0	.8	.3	.0								2.1	4.2
SSW	.8	.6	.2	.0								1.6	4.0
SW	.5	.9	.3	.0								1.8	4.9
WSW	1.3	1.6	1.1	.0								4.0	5.0
W	2.4	4.1	3.5	.9	.0							10.9	6.2
WNW	1.1	2.5	1.7	.6	.1							6.0	6.3
NW	1.4	1.7	1.4	.3								4.7	5.6
NNW	1.6	1.6	.6	.1								3.8	4.3
VARBL	.0	.1	3.1	.7	.1							3.9	9.2
CALM												34.3	
	21.2	25.8	16.1	2.9	.2							100.0	3.8

TOTAL NUMBER OF OBSERVATIONS 6363

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL STATION NAME 73-81 YEARS MAY NORTH
ALL WEATHER CLASS 0000-0200 HOURS (LST)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.0	.6	.1									1.7	3.5
NNE	.6	.1										.7	2.2
NE	1.2	.6										1.8	2.9
ENE	2.3	2.2	.2									4.7	3.6
E	2.9	2.8	.6									6.3	3.7
ESE	1.2	.1										1.3	2.0
SE	.1											.1	2.0
SSE	.1	.2										.4	4.3
S	.4											.4	2.0
SSW	.5											.5	2.3
SW	.2											.2	2.0
WSW	.6	.5	.1	.1								1.3	4.6
W	3.3	2.9	.5									6.7	3.8
WNW	1.3	2.3	.5	.1	.1							4.4	4.9
NW	.9	1.1	.2									2.2	4.2
NNW	1.2	.4	.1									1.7	2.9
VARBL			.1									.1	7.0
CALM												65.3	
	17.9	13.9	2.6	.2	.1							100.0	1.3

TOTAL NUMBER OF OBSERVATIONS 822

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

MAY
MONTH

ALL WEATHER
CLASS

0300-0500
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.2	.4										1.6	2.5
NNE	.5	.1										.6	3.2
NE	.7	.2										1.0	3.4
ENE	1.3	1.9	.4									3.7	4.2
E	2.4	2.6	.6									5.6	4.0
ESE	1.9	.2										2.2	1.8
SE	.2											.2	2.0
SSE		.1										.1	4.0
S	.4	.1										.5	2.8
SSW	.4											.4	1.7
SW	.2	.2										.5	3.5
WSW	1.7	.4										2.1	2.4
W	3.2	3.3	.7									7.2	3.9
WNW	1.1	1.2	.9									3.2	4.8
NW	.2	1.1	.2									1.6	4.8
NNW	1.6	.4										1.9	2.9
VARBL			.4	.1								.5	9.0
CALM												67.2	
	17.2	12.3	3.2	.1								100.0	1.2

TOTAL NUMBER OF OBSERVATIONS

A21

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

MAY
MONTH

ALL WEATHER
CLASS

0600-0800
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.4	.8										1.2	4.2
NNE	.5	.6										1.1	3.6
NE	1.2	.7	.1									2.1	3.5
ENE	1.0	3.1	.5	.2								4.8	5.2
E	3.0	3.9	.8									7.7	4.3
ESE	4.1	.8	.1									5.1	2.7
SE	2.8	.2										3.0	2.0
SSE	1.2	.1										1.3	1.7
S	1.3	.6	.1									2.1	3.0
SSW	.1	.1										.2	4.0
SW	.6	.1										.7	2.7
WSW	1.9	1.7	.7									4.3	4.2
W	2.3	5.2	2.2	.1								9.8	5.2
WNW	1.8	1.8	.8	.1								4.6	4.6
NW	1.4	1.0	.2									2.7	3.7
NNW	1.4	1.2		.1								2.8	3.9
VARBL			1.1	.1								1.2	8.9
CALM												45.3	
	25.1	22.1	6.8	.7								100.0	2.3

TOTAL NUMBER OF OBSERVATIONS

828

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS MAY
STATION NAME MONTH
ALL WEATHER CLASS
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.6	1.2	.1									1.9	4.3
NNE	.8	1.0										1.8	3.4
NE	.8	1.2	.4	.4								2.8	5.8
ENE	1.0	2.8	1.3	.1								5.2	5.7
E	2.5	4.4	1.6									8.5	4.6
ESE	3.7	4.6	.8	.1								9.2	4.1
SE	2.4	3.2	.4	.1								6.1	4.2
SSE	1.8	2.2	.5									4.4	4.1
S	1.9	1.7	1.0									4.6	4.5
SSW	.8	1.6	.5									2.9	4.6
SW	1.4	1.4	.8									3.7	4.7
WSW	1.0	2.3	.8									4.1	5.3
W	1.9	5.2	4.0	.7	.1							11.9	6.4
WNW	1.1	2.0	2.5	.1								5.8	6.1
NW	.5	1.2	1.9									3.6	6.2
NNW	2.0	2.8	.5									5.3	4.1
VARBL			6.0	.6								6.6	8.4
CALM												11.8	
	24.3	38.6	23.0	2.2	.1							100.0	4.6

TOTAL NUMBER OF OBSERVATIONS 834

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS MAY
ALL WEATHER CLASS 1200-1400 HOURS (LST)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.8	1.4	.1	.1								3.5	3.9
NNE	1.0	1.3										2.3	3.6
NE	.6	1.3	.2	.1								2.3	4.8
ENE	.8	3.6	1.2	.2								5.9	5.6
E	2.4	3.8	1.2									7.4	4.9
ESE	1.4	4.1	.7	.1								6.4	4.9
SE	.7	2.0	.7									3.5	5.2
SSE	.7	2.0	.7	.1								3.6	5.1
S	1.3	1.8	1.0									4.1	4.9
SSW	.8	1.8	.8	.1								3.6	5.1
SW	.8	3.6	.7	.1								5.3	5.3
WSW	1.2	2.0	1.7	.5								5.4	6.1
W	1.7	4.6	5.0	1.0								12.2	6.7
WNW	1.7	3.7	4.7	.5	.1							10.7	6.5
NW	1.1	2.2	2.0	.4								5.6	6.4
NNW	1.2	1.9	.7									3.8	4.7
VARBL		.2	9.4	.4								10.0	8.2
CALM												4.6	
	19.3	41.5	30.9	3.6	.1							100.0	5.5

TOTAL NUMBER OF OBSERVATIONS 834

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS MAY
STATION NAME NORTH
ALL WEATHER CLASS 1500-1700
CONDITION HOURS (LST)

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.3	2.0	.6									4.0	4.5
NNE	2.3	1.8	.1									4.2	3.7
NE	2.2	1.3	.6									4.1	4.1
ENE	1.9	2.2	1.8	.4								6.3	5.3
E	3.0	4.3	1.7	.2								9.3	4.8
ESE	1.9	2.4	.8	.1								5.3	4.6
SE	1.3	1.4	.5	.1								3.4	4.6
SSE	1.1	1.0	.7									2.8	4.6
S	1.4	1.9	.2									3.6	4.0
SSW	1.2	1.7	.6									3.5	4.9
SW	1.0	1.3	.2									2.5	4.2
WSW	1.0	1.8	.8									3.6	5.1
W	1.7	7.1	4.1	1.0								13.9	6.1
WNW	1.2	4.1	4.0	1.0								10.2	6.8
NW	1.0	2.5	3.1	.5								7.1	6.6
NNW	1.4	2.0	1.0	.1								4.6	4.9
VARBL		.1	6.5	.4								7.0	8.2
CALM												4.7	
	24.9	39.2	27.5	3.7								100.0	5.2

TOTAL NUMBER OF OBSERVATIONS 830

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

STATION 16870 STATION NAME GRAFENWOHR AAF DL YEARS 73-81 MONTH MAY
CLASS ALL WEATHER HOURS (L.S.T.) 1800-2000
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	2.7	1.6	.1	.1								4.5	3.4
NNE	1.5	.6										2.1	2.9
NE	2.3	1.6										3.9	3.1
ENE	3.0	1.6	1.2									5.8	4.1
E	6.0	5.2	.9									12.0	3.7
ESE	2.3	1.8										4.1	3.2
SE	.9	.5	.1									1.5	3.3
SSE	.7	.4	.1									1.2	3.4
S	1.9	.7	.1									2.8	3.2
SSW	.7	.2	.2									1.2	3.6
SW	1.1	1.0	.4									2.4	4.4
WSW	1.5	1.0	.5	.1								3.0	4.2
W	3.6	4.3	1.2	.2								9.4	4.7
WNW	1.8	3.8	1.7									7.3	5.0
NW	1.2	2.4	1.5	.1								5.2	5.6
NNW	1.2	2.3	.7									4.3	4.6
VARBL			2.1	.2								2.3	8.7
CALM												27.0	
	32.4	28.9	10.8	.9								100.0	3.1

TOTAL NUMBER OF OBSERVATIONS 823

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6873 STATION GRAFENWOHR AAF DL 73-81 YEARS MAY MONTH
ALL WEATHER CLASS 2100-2300 HOURS U.S.T.
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.5	.4	.1									1.0	3.1
NNE	1.1											1.1	2.3
NE	1.5	.4	.1									1.9	2.8
ENE	3.9	2.1	.7									6.7	3.6
E	4.6	2.8	.7									8.1	3.5
ESE	1.5	.4										1.8	2.5
SE	.1											.1	1.0
SSE	.2											.2	1.0
S	.5											.5	1.5
SSW	.4											.4	2.0
SW	.4	.1		.1								.6	4.4
WSW	1.7	.4										2.1	2.3
W	3.2	1.9	1.0									6.1	4.0
WNW	1.6	1.9	.5									4.0	4.2
NW	1.0	.6	.4	.2								2.2	4.7
NNW	2.2	.7	.1									3.0	2.9
VARBL			.5									.5	7.3
CALM												59.7	
	24.2	11.7	4.1	.4								100.0	1.4

TOTAL NUMBER OF OBSERVATIONS 824

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

STATION 16870 GRAFENWOHR AAF DL STATION NAME 73-81 YEARS MAY MONTH
ALL WEATHER CLASS ALL HOURS (L S Y) CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.2	1.1	.2	.0								2.4	3.8
NNE	1.0	.7	.0									1.7	3.3
NE	1.3	.9	.2	.1								2.5	3.9
ENE	1.9	2.4	.9	.1								5.4	4.7
E	3.4	3.7	1.0	.0								8.1	4.2
ESE	2.3	1.8	.3	.0								4.4	3.7
SE	1.1	.9	.2	.0								2.3	4.0
SSE	.7	.8	.3	.0								1.8	4.1
S	1.1	.9	.3									2.3	4.0
SSW	.6	.7	.3	.0								1.6	4.5
SW	.7	1.0	.3	.0								2.0	4.6
WSW	1.3	1.3	.6	.1								3.2	4.6
W	2.6	4.3	2.3	.4	.0							9.6	5.4
WNW	1.5	2.6	1.9	.2	.0							6.3	5.7
NW	.9	1.5	1.2	.2								3.8	5.7
NNW	1.5	1.5	.4	.0								3.4	4.1
VARBL		.0	3.3	.2								3.5	8.3
CALM												35.6	
	23.2	26.1	13.7	1.5	.0							100.0	3.1

TOTAL NUMBER OF OBSERVATIONS 6616

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AID WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS JUN MONTH
STATION NAME CLASS ALL WEATHER HOURS (L.S.T.) 0000-0200
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.9	.5	.1									1.5	3.4
NNE	.6											.6	1.8
NE	.7											.7	1.8
ENE	.4	.2										.6	3.2
E	1.4	.2										1.6	2.8
ESE	.2											.2	1.5
SE	.5											.5	2.3
SSE	.2	.1	.1									.5	3.5
S	.2	.2	.1									.6	4.8
SSW	.5	.5		.1								1.1	4.4
SW	1.0											1.0	2.4
WSW	1.2	.2										1.5	2.6
W	3.9	2.6	1.0	.2								7.7	4.1
WNW	2.1	1.1	.6	.4								4.2	4.8
NW	1.2	.9	.4									2.5	4.0
NNW	1.5	.4	.2									2.1	3.3
VARBL			.4	.1								.5	9.8
CALM												72.4	
	16.7	7.1	3.0	.9								100.0	1.1

TOTAL NUMBER OF OBSERVATIONS 804

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

JUN
MONTH

ALL WEATHER
CLASS

0300-0500
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.9	.4										1.2	2.7
NNE	.4	.1										.5	3.0
NE	.4											.4	2.7
ENE		.2										.2	4.5
E	1.6	.2	.2									2.1	2.9
ESE	.6											.6	1.4
SE	.4											.4	1.7
SSE	.4											.4	2.3
S	.2	.4										.6	3.2
SSW	.4	.1										.5	2.5
SW	.9	.7										1.6	3.1
WSW	.9	.9	.1									1.9	3.8
W	4.0	3.7	.4									8.0	3.6
WNW	2.0	1.1	1.0	.1								4.2	4.6
NW	1.2	.9	.4									2.5	3.9
NNW	1.9	.6	.1	.1								2.7	3.6
VARBL			.2									.2	7.0
CALM												71.9	
	16.0	9.4	2.5	.2								100.0	1.0

TOTAL NUMBER OF OBSERVATIONS 808

GLCBAL CLIMATOLOGY BRANCH
USAFETAC
AIP WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1-6870 STATION GRAFENWOHR AAF DL 73-81 YEARS JUN MONTH
ALL WEATHER CLASS 0600-0800 HOURS (L.S.T.)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.5	.6	.1									2.2	3.1
NNE	.5	.2										.7	2.8
NE	.4	.2										.6	3.2
ENE	1.4	1.0	.4									2.7	4.0
E	2.6	.9										3.5	2.6
ESE	2.3	.4										2.7	2.3
SE	1.7	.1										1.9	2.1
SSE	.7											.7	1.5
S	1.4	.5	.2									2.1	3.2
SSW	1.2	.7										2.0	3.3
SW	1.5	.6										2.1	3.1
WSW	1.1	1.0	.6									2.7	4.6
W	3.1	6.3	2.6	.4								12.3	5.1
WNW	1.9	3.0	1.6									6.4	5.1
NW	2.1	1.4	.4									3.8	3.8
NNW	2.0	.7	.1									2.8	3.0
VARBL			1.4	.4								1.7	8.6
CALM												88.9	
	25.3	17.7	7.4	.7								100.0	2.1

TOTAL NUMBER OF OBSERVATIONS 810

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

16870 STATION GRAFENWOHR AAF DL 73-81 YEARS JUN MONTH
ALL WEATHER CLASS 0900-1100 HOURS (L.S.T.)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	2.2	1.9	.6									4.7	4.0
NNE	.7	1.2	.1									2.1	4.3
NE	1.2	.9	.5									2.6	4.1
ENE	2.0	1.6	.4									4.0	3.8
E	2.5	2.6	.4									5.4	4.0
ESE	3.0	1.1										4.1	2.8
SE	1.7	1.2	.2									3.2	3.7
SSE	2.4	1.0	.2									3.6	3.3
S	2.5	3.3	.1									5.9	3.8
SSW	1.0	1.2	.6									2.8	4.9
SW	1.2	1.6	.2									3.1	4.1
WSW	1.0	3.8	1.4	.1								6.3	5.6
W	2.8	7.4	5.3	.9								16.5	6.2
WNW	1.0	2.7	3.5	.9								8.0	6.9
NW	1.0	2.0	2.0	.2								5.2	5.9
NNW	1.6	2.7	.9		.1							5.3	4.7
VARBL		.2	3.2	.9	.1							4.5	9.0
CALM												12.6	
	27.8	36.6	19.7	3.0	.2							100.0	4.5

TOTAL NUMBER OF OBSERVATIONS 808

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

16870 STATION GRAFENWOHR AAF DL 73-81 YEARS JUN MONTH
1200-1400 HOURS (L.S.T.)

ALL WEATHER

CLASS

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	3.2	1.6	.5	.1								5.4	3.8
NNE	1.2	.9	.2									2.3	3.7
NE	.7	1.6	.5									2.8	4.6
ENE	1.5	1.5	.5									3.5	4.2
E	2.0	3.5	.1									5.6	3.9
ESE	1.4	1.7	.4									3.5	4.1
SE	1.6	.9	.2									2.7	3.7
SSE	1.1	1.0	.1	.1								2.3	4.2
S	1.6	1.6	.7									4.0	4.4
SSW	1.4	2.2	.6	.1								4.3	4.6
SW	.7	3.1	.9									4.7	5.2
WSW	1.0	2.0	1.0	.2								4.2	6.0
W	1.7	6.5	5.1	1.5								14.8	6.6
WNW	1.0	4.2	4.0	2.0								11.1	7.2
NW	1.1	4.3	2.2	.7								8.4	6.3
NNW	2.5	3.0	1.6	.1								7.2	5.1
VARBL		.4	8.3	1.1								9.8	8.8
CALM												3.5	
	23.7	39.9	26.9	6.0								100.0	5.5

TOTAL NUMBER OF OBSERVATIONS 810

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

16870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

JUN
MONTH

ALL WEATHER
CLASS

1500-1700
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.9	2.5	.4									4.7	3.8
NNE	1.7	2.3	.5									4.6	4.2
NE	1.7	1.7	.1									3.6	4.0
ENE	1.7	2.2	.4									4.3	4.0
E	1.4	3.3	.7									5.4	4.6
ESE	1.6	1.4	.2									3.2	3.8
SE	1.1	.5	.1									1.7	2.9
SSE	1.0	.4	.4									1.7	4.3
S	1.4	1.4	.5									3.2	4.4
SSW	1.1	1.7	.2									3.1	4.4
SW	.6	1.6	.7	.1								3.1	5.6
WSW	1.5	2.3	.9									4.7	4.9
W	3.0	5.6	5.1	1.7								15.3	6.5
WNW	1.6	3.7	5.9	1.6								12.8	7.4
NW	2.1	2.2	3.8	.9								9.0	6.6
NNW	2.7	4.2	.9	.1								7.9	4.5
VARBL		.2	5.7	1.1								7.0	8.8
CALM												4.6	
	26.0	37.3	26.5	5.6								100.0	5.4

TOTAL NUMBER OF OBSERVATIONS 810

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

106870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

JUN
MONTH

ALL WEATHER
CLASS

1800-2000
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	4.7	2.0										6.7	2.7
NNE	2.7	1.2	.2									4.2	3.1
NE	2.0	1.0										3.0	2.6
ENE	2.5	.7	.6									3.8	3.5
E	3.0	2.5	.5									5.9	3.4
ESE	2.2	.6	.2									3.1	3.2
SE	.9	.2	.5									1.6	4.2
SSE	.5	.4										.9	3.0
S	1.2	.7										2.0	3.2
SSW	1.1	.5	.1									1.7	3.3
SW	1.1	.1	.4									1.6	3.6
WSW	1.5	1.6	.7									3.8	4.6
W	4.3	5.3	2.8	.5								13.0	4.9
WNW	2.3	4.6	3.1	.4								10.4	5.5
NW	1.9	4.6	1.9	.2								8.5	5.3
NNW	3.7	3.1	.9									7.7	3.8
VARBL			1.1	.4								1.5	9.2
CALM												20.7	
	35.6	29.1	13.1	1.5								100.0	3.4

TOTAL NUMBER OF OBSERVATIONS 810

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

106870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

JUN
MONTH

ALL WEATHER
CLASS

2100-2300
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	2.0	.5	.1									2.6	2.8
NNE	.9	.2										1.1	2.1
NE	1.0	.2										1.2	2.4
ENE	2.0	.4										2.4	2.1
E	1.4	.7	.1									2.2	3.1
ESE	1.1		.1									1.2	2.3
SE	.2	.1										.4	2.7
SSE	.5											.5	1.8
S	1.6	.1										1.7	2.4
SSW	.7	.2										1.0	2.6
SW	.6	.2										.9	3.1
WSW	1.7	.5										2.2	2.7
W	4.3	3.3	.5									8.2	3.4
WNW	1.2	1.2	1.0									3.5	4.9
NW	1.5	1.2	.1									2.8	3.6
NNW	2.2	.5	.1									2.8	2.7
VARBL				.5								.5	11.5
CALM												64.7	
	23.0	9.7	2.1	.5								100.0	1.1

TOTAL NUMBER OF OBSERVATIONS 808

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

106870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

JUN
MONTH

ALL WEATHER
CLASS

ALL
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	2.1	1.2	.2	.0								3.6	3.4
NNE	1.1	.8	.1									2.0	3.5
NE	1.0	.7	.1									1.9	3.5
ENE	1.4	1.0	.3									2.7	3.7
E	2.0	1.7	.3									4.0	3.6
ESE	1.6	.6	.1									2.3	3.1
SE	1.0	.4	.1									1.5	3.3
SSE	.9	.4	.1	.0								1.3	3.4
S	1.3	1.0	.2									2.5	3.8
SSW	.9	.9	.2	.0								2.1	4.1
SW	1.0	1.0	.3	.0								2.3	4.3
WSW	1.2	1.5	.6	.0								3.4	4.8
W	3.4	5.1	2.8	.6								12.0	5.4
WNW	1.6	2.7	2.6	.7								7.6	6.2
NW	1.5	2.2	1.4	.3								5.3	5.4
NNW	2.3	1.9	.6	.0	.0							4.8	4.1
VARBL		.1	2.5	.6	.0							3.2	8.9
CALM												37.4	
	24.3	23.4	12.7	2.3	.0							100.0	3.0

TOTAL NUMBER OF OBSERVATIONS 6468

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1-6870 STATION GRAFENWOHR AAF DL 73-81 YEARS JUL NORTH
ALL WEATHER CLASS 0000-0200 HOURS (L.S.T.)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.4											.4	2.3
NNE													
NE	.8											.8	1.6
ENE	.4											.4	2.3
E	.6	.1										.7	2.5
ESE	.5	.1	.1									.7	3.3
SE	.1											.1	1.0
SSE		.1										.1	5.2
S	.4											.4	2.0
SSW	1.0	.5										1.4	2.7
SW	1.4	.8										2.3	3.2
WSW	2.0	2.7	.4									5.1	3.9
W	4.8	3.6	1.0	.2								9.6	4.1
WNW	1.1	.5	.7	.4								2.7	6.0
NW	1.1	1.3	.2									2.7	4.0
NNW	1.1	.5	.1									1.7	3.5
VARBL			.4									.4	8.0
CALM												70.6	
	15.7	10.2	2.9	.6								100.0	1.1

TOTAL NUMBER OF OBSERVATIONS 830

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

STATION 106870 STATION NAME GRAFENWOHR AAF DL YEARS 73-81 MONTH JUL
CLASS ALL WEATHER HOURS (LST) 0300-2500
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.6	.2	.1									1.0	3.3
NNE	.1											.1	2.0
NE	.1	.1										.2	3.5
ENE	.6											.6	1.8
E	1.3	.2										1.6	2.0
ESE	.5											.5	2.3
SE													
SSE	.4											.4	2.0
S	1.3											1.3	1.7
SSW	.5	.2										.7	3.2
SW	1.4	1.2	.1									2.8	3.7
WSW	1.9	2.9	.4									5.2	4.1
W	4.1	3.0	1.1	.4								8.5	4.4
WNW	.7	1.2	.8									2.8	5.3
NW	1.9	.4										2.3	2.6
NNW	1.3	.2										1.6	2.0
VARBL													
CALM												70.5	
	16.8	9.7	2.5	.4								100.0	1.1

TOTAL NUMBER OF OBSERVATIONS 831

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

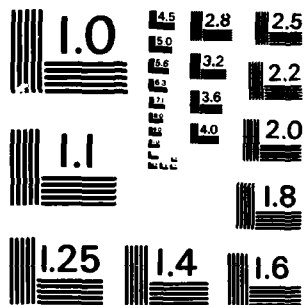
106870 STATION GRAFENWOHR AAF DL 73-81 YEARS JUL MONTH
ALL WEATHER CLASS 0600-0800 HOURS (L.S.T.)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.2											.2	2.0
NNE	.5	.2										.7	3.0
NE	.5	.1										.6	2.8
ENE	.5											.5	2.3
E	.8	.4										1.2	2.9
ESE	1.6	.4										1.9	2.6
SE	1.0	.1										1.1	2.3
SSE	2.0	.1										2.2	2.2
S	1.7	1.2										2.9	3.2
SSW	1.2	.6	.2									2.0	3.4
SW	1.2	1.8										3.0	3.6
WSW	2.8	2.4	.8									6.0	4.1
W	3.7	6.7	3.5	.6								14.6	5.4
WNW	1.7	2.2	2.2	.1								6.1	5.4
NW	1.2	2.0	.7									4.0	4.6
NNW	1.7	1.1										2.8	3.1
VARBL			.1									.1	7.0
CALM												50.1	
	22.3	19.4	7.6	.7								100.0	2.1

TOTAL NUMBER OF OBSERVATIONS 831

2/5

NL



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIP WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS JUL MONTH
STATION NAME CLASS HOURS (LST)
ALL WEATHER
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.1	2.2	.7	.1								4.1	5.0
NNE	.7	1.2										1.9	4.3
NE	.8	.8	.1									1.8	3.5
ENE	.7	1.3	.1									2.2	3.9
E	1.0	1.3	.7									3.0	4.8
ESE	.5	1.0										1.4	4.3
SE	1.0	.7	.4									2.1	4.2
SSE	1.1	.6	.1									1.8	3.5
S	1.8	1.9	.7									4.5	4.3
SSW	.7	1.2	.8									2.8	5.1
SW	.6	1.8	.6									3.0	5.1
WSW	1.4	5.0	2.8	.4								9.5	5.9
W	2.3	9.4	9.2	1.1	.1							22.1	6.6
WNW	1.4	5.3	7.1	1.0								14.9	6.9
NW	1.0	2.7	5.2	.8								9.7	7.3
NNW	1.2	2.7	2.1	.2								6.2	5.7
VARBL		.1	4.6	.4								5.1	8.6
CALM												4.0	
	17.4	39.3	35.3	4.0	.1							100.0	5.8

TOTAL NUMBER OF OBSERVATIONS 828

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

JUL
MONTH

ALL WEATHER
CLASS

1500-1700
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.7	2.6	.7	.1								4.2	5.2
NNE	1.0	.7	.6									2.3	4.4
NE	.5	1.2										1.7	4.3
ENE	.8	.7	.2									1.8	3.9
E	1.4	2.2	.2									3.9	4.0
ESE	1.1	.7										1.8	3.2
SE	1.0	.8	.4									2.2	4.0
SSE	1.3	1.0	.5									2.8	4.1
S	1.0	1.9	.8									3.7	4.7
SSW	1.0	1.1	.4									2.4	4.1
SW	1.1	2.0	.7									3.9	4.8
WSW	1.2	3.7	2.6	.2								7.8	5.9
W	2.5	8.9	8.5	1.3								21.3	6.6
WNW	1.3	5.7	6.9	1.0								14.8	6.9
NW	.5	4.6	2.8	.4	.1							8.3	6.6
NNW	1.8	3.7	1.2	.4								7.1	5.3
VARBL			3.1	1.0								4.1	9.1
CALM												6.0	
	18.2	41.6	29.7	4.3	.1							100.0	5.5

TOTAL NUMBER OF OBSERVATIONS 831

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS JUL MONTH
ALL WEATHER CLASS 1800-2000 HOURS (L & T)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	2.2	1.4	.8									4.5	4.1
NNE	1.3	1.1	.1									2.5	3.4
NE	1.1	.2	.1									1.4	3.1
ENE	1.6	.2										1.8	2.3
E	1.6	.6										2.2	3.1
ESE	1.7	.1										1.8	2.1
SE	.6	.5										1.1	3.1
SSE	1.2	.1										1.3	2.4
S	1.4	1.6										3.0	3.6
SSW	1.1	.7	.1									1.9	3.3
SW	1.4	.6										2.1	3.1
WSW	2.2	2.3	1.3	.1								5.9	4.9
W	5.3	7.1	5.2	.2								17.9	5.2
WNW	2.3	5.7	3.4									11.3	5.4
NW	2.2	3.7	.6									6.5	4.0
NNW	2.9	1.8	.8									5.5	4.1
VARBL		.1	1.1	.1								1.3	8.3
CALM												27.9	
	30.0	28.0	13.6	.5								100.0	3.2

TOTAL NUMBER OF OBSERVATIONS 829

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

JUL
MONTH

ALL WEATHER
CLASS

2100-2300
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.3	.6	.1									2.1	3.2
NNE	.4	.1										.5	2.5
NE	.5											.5	2.0
ENE	1.2	.2										1.4	2.3
E	1.0	.2										1.2	2.4
ESE	.5	.1										.6	2.2
SE	.1											.1	2.0
SSE	.4	.1										.5	2.3
S	1.1	.4										1.4	3.1
SSW	.7	.2	.1									1.1	3.4
SW	1.2	.7	.1									2.1	3.2
WSW	2.3	2.3										4.6	3.6
W	4.8	3.0	1.2	.4								9.4	4.1
WNW	.8	2.3	1.2									4.3	5.6
NW	1.1	.2	.1	.1								1.6	3.5
NNW	1.4	.5	.4	.1								2.4	4.3
VARBL			.4	.1								.5	9.3
CALM												65.7	
	18.8	11.1	3.6	.7								100.0	1.3

TOTAL NUMBER OF OBSERVATIONS 828

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

JUL
MONTH

ALL WEATHER
CLASS

ALL
HOURS (L S T)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.9	1.0	.3	.0								2.3	4.3
NNE	.6	.5	.1									1.2	3.8
NE	.6	.4	.0									1.1	3.3
ENE	.8	.5	.0									1.3	3.1
E	1.2	.8	.1									2.1	3.5
ESE	1.0	.4	.1									1.5	3.1
SE	.7	.4	.1									1.1	3.3
SSE	1.1	.3	.1									1.6	3.1
S	1.3	1.2	.2									2.7	3.9
SSW	1.0	.9	.3									2.1	3.9
SW	1.2	1.4	.3									2.9	4.1
WSW	2.0	2.9	1.3	.1								6.3	4.9
W	3.7	6.7	4.8	.6	.0							15.4	5.6
WNW	1.5	3.4	3.4	.4								8.7	6.2
NW	1.3	2.3	1.5	.2	.0							5.2	5.5
NNW	1.7	1.6	.6	.1								4.0	4.5
VARBL	.0	.0	1.6	.2								1.9	8.6
CALM												38.7	
	20.4	24.4	14.9	1.7	.0							100.0	3.1

TOTAL NUMBER OF OBSERVATIONS

6639

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

AUG
MONTH

ALL WEATHER
CLASS

0000-0200
HOURS (L & T)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.0	.2										1.2	2.6
NNE	.1											.1	1.0
NE	.6											.6	1.4
ENE	.8											.8	1.9
E	1.1	.2										1.3	2.4
ESE													
SE													
SSE													
S	.2											.2	2.0
SSW	.1											.1	2.0
SW	.2	.4										.6	3.2
WSW	1.2	.5	.2									1.9	3.4
W	1.7	2.9	.8									5.4	4.4
WNW	1.9	.8	.4									3.1	3.7
NW	.8	1.1	.1									2.0	3.9
NNW	.8	.6	.4									1.8	4.4
VARBL													
CALM												90.7	
	10.6	6.7	1.9									100.0	.7

TOTAL NUMBER OF OBSERVATIONS 836

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIF WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

AUG
MONTH

ALL WEATHER
CLASS

0300-0500
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.4	.2	.1									.7	3.7
NNE	.1	.1										.2	3.5
NE	.2											.2	2.0
ENE	.5											.5	1.8
E	1.1											1.1	2.2
ESE	.7	.1										.8	2.0
SE	.2											.2	1.5
SSE	.2	.1										.4	2.0
S		.1										.1	5.0
SSW	.1	.2										.4	3.3
SW	.6	.4										1.0	2.8
WSW	.8	.7										1.6	3.2
W	3.3	1.4	.7									5.5	3.5
WNW	1.2	1.7	.5									3.3	4.6
NW	1.1	.8	.7	.1								2.7	5.0
NNW	.5	.5										1.0	3.3
VARBL			.4									.4	9.0
CALM												79.9	
	11.1	6.5	2.4	.1								100.0	.7

TOTAL NUMBER OF OBSERVATIONS

837

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIP WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

AUG
MONTH

ALL WEATHER
CLASS

0600-0800
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.4	.2	.1									.7	4.2
NNE	.6											.6	1.6
NE	.1											.1	3.0
ENE	1.0	.6										1.6	3.1
E	2.6	1.1										3.7	2.8
ESE	2.3	.1										2.4	2.1
SE	1.2											1.2	1.7
SSE	1.0											1.0	1.8
S	1.2	.1										1.3	2.1
SSW	.8	.1	.2									1.2	3.3
SW	.5	.5										1.0	3.0
WSW	1.8	1.0	.5									3.2	3.7
W	1.9	2.2	1.2									5.3	4.7
WNW	1.1	1.7	1.0									3.7	4.9
NW	2.2	1.4	.8	.2								4.7	4.9
NNW	1.2	.2	.4									1.8	3.4
VARBL			.5									.5	9.3
CALM												66.1	
	19.7	9.2	4.7	.2								100.0	1.3

TOTAL NUMBER OF OBSERVATIONS

836

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

106870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

AUG
MONTH

ALL WEATHER
CLASS

0900-1100
HOURS (L.S.T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	.4	.2									1.4	3.7
NNE	1.0	.5	.1									1.6	3.6
NE	.6	.7	.2									1.6	4.3
ENE	2.4	1.3										3.7	3.1
E	4.2	3.1	.5									7.8	3.8
ESE	2.7	3.8	1.0									7.5	4.3
SE	2.7	1.8	.6									5.1	3.7
SSE	3.6	1.3	.1									5.0	3.0
S	3.2	1.3	.1									4.7	3.0
SSW	1.7	1.3										3.0	3.3
SW	1.4	1.6	.4									3.3	4.0
WSW	2.3	1.8	1.1	.1								5.3	4.5
W	2.0	5.5	2.9	.6								11.0	5.7
WNW	2.5	2.9	1.8	.2								7.4	5.2
NW	1.9	2.3	1.4	.1								5.7	5.1
NNW	1.7	1.6	.8									4.1	4.1
VARBL		.1	2.6	.2								3.0	8.0
CALM												18.9	
	34.8	31.2	13.9	1.3								100.0	3.6

TOTAL NUMBER OF OBSERVATIONS 837

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS AUG NORTH
1200-1400 HOURS (LST)
ALL WEATHER CLASS
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.9	1.0	.6									3.5	4.1
NNE	1.1	.8	.4									2.3	4.0
NE	.7	.6	.1									1.4	3.5
ENE	1.1	1.4										2.5	3.6
E	2.2	3.3	.8	.1								6.5	4.7
ESE	1.9	3.0	.8									5.7	4.5
SE	2.2	2.9	.7									5.7	4.3
SSE	2.2	1.1	.7									3.9	4.0
S	2.0	2.4	.8									5.3	4.2
SSW	1.7	2.0	.5									4.2	4.3
SW	1.7	1.3	.4									3.3	4.2
WSW	1.7	2.9	1.6									6.1	4.9
W	2.9	6.8	6.2	1.3								17.2	6.3
WNW	2.3	4.1	3.0	.1								9.4	5.6
NW	1.1	3.6	1.4	.2								6.3	5.5
NNW	1.2	1.8	.6	.1								3.7	4.6
VARBL		.5	5.5	.2	.2	.1						6.6	8.6
CALM												6.2	
	27.6	39.5	24.2	2.2	.2	.1						100.0	4.9

TOTAL NUMBER OF OBSERVATIONS 836

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 GRAFENWOHR AAF DL 73-81 AUG
STATION STATION NAME YEARS MONTH
ALL WEATHER 1500-1700
CLASS HOURS (LST)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	~	MEAN WIND SPEED
N	2.0	1.6	1.0									4.5	4.3
NNE	1.9	.7	.1									2.8	3.2
NE	1.0	1.1	.4									2.4	4.4
ENE	1.2	1.8	.1									3.1	4.0
E	1.9	3.2	.8									6.0	4.5
ESE	2.0	3.2	.7									6.0	4.5
SE	1.1	2.8	.5									4.3	4.7
SSE	1.3	1.2	.1									2.6	3.9
S	1.1	1.7	.2									3.0	4.2
SSW	1.2	1.6	.1									2.9	3.8
SW	1.4	1.8	.4									3.6	4.0
WSW	2.5	3.1	1.1									6.7	4.4
W	3.5	4.8	3.6	.6								12.4	5.7
WNW	1.4	4.7	3.9	1.0								11.0	6.6
NW	1.7	4.8	2.6	.4								9.4	5.7
NNW	2.4	2.4	.7	.1								5.6	4.1
VARBL		.4	4.9	.8	.1							6.2	8.8
CALM												7.4	
	27.6	40.7	21.3	2.9	.1							100.0	4.8

TOTAL NUMBER OF OBSERVATIONS 836

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS
AUG MONTH
1800-2000 HOURS (LST)
ALL WEATHER CLASS
CONDITION

SPEED (KNOTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	2.4	.8	.2									3.5	2.8
NNE	2.0	.4	.1									2.5	2.5
NE	1.0	.2										1.2	2.9
ENE	1.3	.6	.1									2.2	3.1
E	4.5	1.4										6.2	2.6
ESE	1.9	.8	.1									2.9	3.1
SE	1.3	.5										1.8	2.7
SSE	.6	.2										.9	3.3
S	1.1	.7										1.8	3.1
SSW	.5	.4										.8	3.1
SW	2.4	.5										2.9	2.7
WSW	1.7	1.3	.1									3.1	3.5
W	3.7	4.3	2.0	.1								12.2	4.6
WNW	1.4	2.6	1.9	.1								6.1	5.4
NW	2.0	2.9	1.2									6.1	4.7
NNW	3.8	1.7	.2									5.7	3.0
VARBL			.8	.4								1.2	9.5
CALM												41.5	
	31.7	19.4	6.9	.6								100.0	2.2

TOTAL NUMBER OF OBSERVATIONS 837

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

6870 STATION GRAFENWOHR AAF DL 73-81 YEARS AUG NORTH
ALL WEATHER CLASS 2100-2300 HOURS (LST)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.6	.5										1.1	3.0
NNE	.5											.9	2.0
NE	1.2											1.2	1.8
ENE	1.2											1.2	1.9
E	1.4	.1										1.6	2.3
ESE	.6	.4										1.0	2.9
SE													
SSE													
S	.5	.1	.1									.7	2.8
SSW													
SW	.2	.2										.5	3.8
WSW	1.3	1.2	.1									2.6	3.8
W	3.1	2.8	.6									6.5	3.7
WNW	1.0	1.3	.2									2.5	4.2
NW	1.8	.1										1.9	2.0
NNW	1.3	1.1										2.4	3.3
VARBL			.7									.7	7.7
CALM												75.7	
	14.7	7.8	1.8									100.0	.8

TOTAL NUMBER OF OBSERVATIONS 836

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

176870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

AUG
MONTH

ALL WEATHER
CLASS

ALL
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.2	.6	.3									2.1	3.6
NNE	.9	.3	.1									1.3	3.1
NE	.7	.3	.1									1.1	3.4
ENE	1.2	.7	.0									1.9	3.2
E	2.4	1.6	.3	.0								4.2	3.6
ESE	1.5	1.4	.3									3.3	3.9
SE	1.1	1.0	.2									2.3	3.9
SSE	1.1	.5	.1									1.7	3.3
S	1.2	.8	.2									2.1	3.5
SSW	.8	.7	.1									1.6	3.7
SW	1.1	.8	.1									2.0	3.6
WSW	1.7	1.6	.6	.0								3.8	4.2
W	2.8	3.8	2.3	.3								9.2	5.2
WNW	1.6	2.5	1.6	.2								5.8	5.4
NW	1.6	2.1	1.0	.1								4.9	5.0
NNW	1.6	1.2	.4	.0								3.3	3.8
VARBL		.1	1.9	.2	.0	.0						2.3	8.6
CALM												47.1	
	22.2	20.1	9.6	.9	.0	.0						100.0	2.8

TOTAL NUMBER OF OBSERVATIONS 6691

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AF WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

SEP
MONTH

ALL WEATHER
CLASS

0000-0200
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.2											.2	2.5
NNE	.1											.1	2.0
NE	.2	.1										.4	3.3
ENE	.6											.6	2.4
E	1.2	.1	.1									1.5	2.8
ESE	.7	.1										.9	2.0
SE	.5											.5	1.8
SSE	.6	.2	.1									1.0	3.5
S	.7	.1										.9	2.1
SSW	.4	.2										.6	3.0
SW	.5	.9										1.4	4.3
WSW	.5	.6										1.1	3.3
W	3.6	3.6	1.5	.1								8.8	4.3
WNW	1.0	1.2	.5	.1								2.9	4.8
NW	1.1	.7	.4									2.2	4.2
NNW	1.5	.6	.1									2.2	2.9
VARBL			.4	.1								.5	8.8
CALM												74.1	
	13.7	8.7	3.1	.4								100.0	1.0

TOTAL NUMBER OF OBSERVATIONS

803

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

SEP
MONTH

ALL WEATHER
CLASS

0300-0500
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.4	.2										.6	3.2
NNE	.4	.1										.5	2.8
NE	.5	.1										.6	2.2
ENE	.5	.2										.7	2.7
E	1.5	.5										2.0	2.4
ESE	1.1											1.1	1.7
SE	.1		.1									.2	4.0
SSE	.9	.1										1.0	2.8
S	.2		.1									.4	4.0
SSW	.1	.4										.5	3.5
SW	.5	.4										.9	3.4
WSW	1.0	1.6	.2									2.9	4.3
W	2.7	3.1	.9	.1								6.8	4.3
WNW	1.5	1.6	.6	.4								4.1	4.8
NW	1.0	1.1	.4									2.5	4.3
NNW	1.2	.2										1.5	1.8
VARBL			.5									.5	8.3
CALM												73.1	
	13.7	9.8	2.9	.5								100.0	1.0

TOTAL NUMBER OF OBSERVATIONS

804

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

STATION 16870 STATION NAME GRAFENWOHR AAF DL YEARS 73-81 MONTH SEP
CLASS ALL WEATHER HOURS (L & T) 0600-0600
CONDITION _____

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.6	.2										.9	2.3
NNE		.4										.4	4.3
NE	.2											.2	2.5
ENE	1.2	.4	.1									1.7	3.0
E	2.0	.4	.1									2.5	2.6
ESE	2.1	.5										2.6	2.2
SE	.9	.4										1.2	2.3
SSE	1.1	.6	.2									2.0	3.5
S	.6	.4	.1									1.1	3.9
SSW	.6	.1										.7	2.5
SW	1.0	.2	.1									1.4	3.4
WSW	1.1	1.7	.7									3.6	4.7
W	2.7	4.3	1.5									8.6	4.5
WNW	1.6	2.2	.4	.2								4.5	4.3
NW	1.2	1.1	.4	.2								3.0	4.8
NNW	1.0	.5										1.5	2.9
VARBL			.4	.2								.6	10.6
CALM												63.5	
	18.1	13.5	4.1	.7								100.0	1.4

TOTAL NUMBER OF OBSERVATIONS 805

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

16870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

SEP
MONTH

ALL WEATHER
CLASS

0900-1100
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 53	≥ 56	%	MEAN WIND SPEED
N	1.0	1.1	.2									2.4	4.1
NNE	.2	.1										.4	2.7
NE	.6	.4										1.2	3.0
ENE	1.6	1.5	.4									3.5	3.9
E	3.0	2.1	.4	.1								5.6	3.8
ESE	2.6	2.7	.9									6.2	4.2
SE	4.2	1.7	.9									6.9	3.4
SSE	4.0	1.2	.6									5.9	3.2
S	2.4	3.2	.7	.1								6.5	4.7
SSW	1.1	1.1	.1	.1								2.5	4.2
SW	.4	1.0	.6									2.0	5.6
WSW	.9	2.5	1.6									5.0	5.6
W	2.0	6.1	3.9	.5								12.5	5.8
WNW	1.1	3.2	2.9									7.2	5.9
NW	.5	1.2	.9	.1								2.7	5.7
NNW	.7	1.6	.4									2.7	4.5
VARBL		.1	3.4	.7								4.2	9.1
CALM												22.8	
	26.4	31.2	17.8	1.7								100.0	3.8

TOTAL NUMBER OF OBSERVATIONS

802

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

16870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

SEP
MONTH

ALL WEATHER
CLASS

1200-1400
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.1	1.7	.2									3.1	4.2
NNE	.9	.4										1.2	3.1
NE	.7	.6										1.4	3.7
ENE	.9	1.2										2.1	3.8
E	2.6	2.6	.5									5.7	4.2
ESE	2.6	1.9	.2	.1								4.9	3.8
SE	2.0	2.9	.9	.1								5.8	4.7
SSE	1.9	2.0	.5									4.9	4.1
S	3.2	3.9	1.1	.5								8.7	4.6
SSW	1.6	3.1	1.1									5.8	4.8
SW	1.0	1.2	1.6	.1								4.0	6.1
WSW	2.0	1.9	1.9									5.7	5.4
W	2.1	6.1	5.7	.9								14.8	6.5
WNW	1.4	3.5	3.0	.9								8.7	6.5
NW	1.2	1.7	2.7	.2								6.0	6.3
NNW	1.0	1.7	.6									3.4	4.7
VARBL		.5	6.3	1.9								8.7	9.0
CALM												5.6	
	26.2	36.9	26.5	4.7								100.0	5.3

TOTAL NUMBER OF OBSERVATIONS 804

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

STATION 1 6870 STATION NAME GRAFENWOHR AAF DL YEARS 73-81 MONTH SEP
CLASS ALL WEATHER HOURS (L & T) 1500-1700
CONDITION

SPEED (KNTS) DIR	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.5	1.6	.5									3.6	3.8
NNE	1.2		.1									1.4	2.5
NE	.9	.7										1.6	3.5
ENE	1.5	.6										2.1	2.8
E	3.4	2.5	.5									6.3	3.6
ESE	2.7	2.1	.1									5.0	3.4
SE	1.4	2.4	.2									4.0	4.3
SSE	1.9	1.6	.9									4.4	4.5
S	1.9	3.1	2.1	.1								7.2	5.2
SSW	1.6	1.9	.4									3.9	4.2
SW	1.2	1.2	.2									2.7	4.3
WSW	2.9	2.9	1.7	.1								7.6	5.0
W	2.7	9.1	5.8									17.7	5.7
WNW	1.2	4.0	2.6	.9								8.7	6.3
NW	1.1	2.5	2.9	.2								6.7	6.2
NNW	1.2	2.2	.6									4.1	4.5
VARBL		.1	4.2	1.4								5.7	9.3
CALM												7.3	
	28.4	38.6	23.0	2.7								100.0	4.8

TOTAL NUMBER OF OBSERVATIONS 804

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1-6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

SEP
MONTH

ALL WEATHER
CLASS

1800-2000
HOURS (L E T)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.3	.4	.1									1.8	3.1
NNE	.5	.3										.8	2.7
NE	1.3	.3										1.5	2.0
ENE	1.9	.1										2.0	1.8
E	3.9	1.4										5.3	2.5
ESE	2.1	.3	.1									2.5	2.7
SE	1.0	.1										1.1	2.2
SSE	1.0	1.1										2.1	3.4
S	1.3	.9	.3									2.4	3.6
SSW	.4	.4	.1									.9	4.3
SW	1.0	.4										1.4	3.2
WSW	1.0	1.6	.4	.1								3.1	4.6
W	6.5	3.8	2.0									12.3	3.9
WNW	1.4	2.8	1.0	.3								5.4	5.3
NW	1.8	1.1	1.0	.1								4.0	4.8
NNW	1.4	1.4										2.8	3.5
VARBL			1.1	.1								1.3	9.1
CALM												49.6	
	27.5	16.1	6.1	.6								120.0	1.9

TOTAL NUMBER OF OBSERVATIONS

800

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS SEP
STATION NAME MONTH
ALL WEATHER CLASS 2100-2300 HOURS (LST)
CONDITION

SPEED (KNTS) DIR	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.3	.3										.5	3.0
NNE	.3											.3	2.0
NE	.4											.4	1.7
ENE	1.4											1.4	1.8
E	2.5	.6										3.1	2.4
ESE	1.1	.4										1.5	2.4
SE	.5	.1										.6	2.4
SSE	.1	.4	.1									.6	4.8
S	.8	.5	.3									1.5	4.0
SSW	.4	.3										.6	3.6
SW	.5	.8										1.3	3.8
WSW	1.1	.8	.3									2.1	4.0
W	3.4	3.8	1.0									8.1	4.0
WNW	1.1	2.3	.6									4.0	4.5
NW	.8	1.8	.3									2.8	4.4
NNW	1.9	.3										2.1	2.5
VARBL			.8	.3								1.0	9.3
CALM												68.0	
	16.4	12.0	3.3	.3								100.0	1.2

TOTAL NUMBER OF OBSERVATIONS 794

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND DIRECTION AND SPEED (FROM HOURLY OBSERVATIONS)

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

SEP
MONTH

ALL WEATHER
CLASS

ALL
HOURS (L & N)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	.7	.1									1.6	3.6
NNE	.5	.2	.0									.6	2.8
NE	.6	.3										.9	2.9
ENE	1.2	.5	.1									1.8	3.0
E	2.5	1.3	.2	.0								4.0	3.3
ESE	1.9	1.0	.2	.0								3.1	3.3
SE	1.3	1.0	.3	.0								2.6	3.8
SSE	1.4	.9	.3									2.7	3.7
S	1.4	1.5	.6	.1								3.6	4.5
SSW	.8	.9	.2	.0								1.9	4.3
SW	.8	.8	.3	.0								1.9	4.7
WSW	1.3	1.7	.9	.0								3.9	4.9
W	3.2	5.0	2.8	.2								11.2	5.1
WNW	1.3	2.6	1.4	.3								5.7	5.6
NW	1.1	1.4	1.1	.1								3.7	5.4
NNW	1.2	1.1	.2									2.5	3.7
VARBL		.1	2.1	.6								2.8	9.2
CALM												45.5	
	21.3	20.9	10.9	1.5								100.0	2.5

TOTAL NUMBER OF OBSERVATIONS

6420

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

186870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

OCT
MONTH

ALL WEATHER
CLASS

0000-0200
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.4	.2										.6	3.0
NNE	.5											.5	2.5
NE	.2	.1										.4	3.7
ENE	1.1	.6	.1									1.8	3.3
E	3.2	3.2	.7									7.2	4.1
ESE	2.9	.4	.1	.2								3.6	3.2
SE	1.3	.4										1.7	2.9
SSE	.8	.1	.1									1.1	2.9
S	1.3	.4										1.7	2.9
SSW	.7	.8		.1								1.7	3.7
SW	1.6	.7	.1	.2								2.6	3.9
WSW	1.6	1.6	.4									3.5	4.0
W	2.8	4.4	2.9	.1								10.2	5.2
WNW	1.2	1.0	1.0	.1								3.2	4.9
NW	1.0	.8	.4	.1								2.3	4.7
NNW	1.1	.5										1.6	2.8
VARBL		.1	.7									.8	7.9
CALM												55.7	
	21.6	15.3	6.5	1.0								100.0	1.8

TOTAL NUMBER OF OBSERVATIONS 835

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIF WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS OCT MONTH
ALL WEATHER CLASS 0300-0500 HOURS (L.S.T.)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.1											.1	2.0
NNE	.4	.2										.6	3.0
NE	.6											.6	2.2
ENE	1.7	1.0		.1								2.8	3.3
E	4.2	2.6	1.2									8.0	3.8
ESE	4.1	.7	.1	.1								5.0	2.5
SE	2.6	.6										3.2	2.3
SSE	1.0	.2	.1									1.3	3.2
S	1.0	.8										1.8	3.3
SSW	1.6	.2										1.8	2.5
SW	1.3	.5	.6									2.4	4.2
WSW	1.0	2.0	.4									3.3	4.5
W	3.3	5.4	1.9	.2								10.9	4.8
WNW	1.0	1.1	.6									2.6	4.5
NW	.6	.7	.2									1.6	4.2
NNW	1.3	1.0										2.3	3.0
VARBL			1.2	.1								1.3	8.5
CALM												50.4	
	25.6	17.1	6.3	.6								100.0	1.9

TOTAL NUMBER OF OBSERVATIONS 836

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS OCT
STATION NAME CLASS 0600-0800
HOURS (LST)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.1	.2										1.3	2.4
NNE	1.1	.1										1.2	2.1
NE	.7	.2										1.0	2.4
ENE	1.9	.5										2.4	2.7
E	3.7	4.2	1.1									9.0	3.9
ESE	5.0	1.3										6.3	2.3
SE	2.5	.6	.1									3.2	2.5
SSE	1.3	.5	.1									1.9	2.8
S	2.4	1.2	.2									3.8	3.1
SSW	1.1	.5										1.6	2.7
SW	.6	.6	.5									1.7	4.6
WSW	2.9	1.9	.4									5.1	3.6
W	2.7	4.5	3.0	.1								10.4	5.2
WNW	.8	.8	.2		.1							2.0	5.0
NW	.8	.2	.1									1.2	3.0
NNW	1.2	.5	.1									1.8	3.9
VARBL			1.4									1.4	7.7
CALM												4.7	
	29.9	17.9	7.3	.1	.1							100.0	2.0

TOTAL NUMBER OF OBSERVATIONS 837

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIF WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS OCT
MONTH
0900-1100
HOURS (LST)

ALL WEATHER
CLASS
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.5	.5	.2									1.2	4.2
NNE	.2	.4										.6	3.4
NE	.5	.5	.1									1.1	3.9
ENE	.8	1.4	.5									2.8	4.3
E	4.1	4.8	1.4	.2	.1							10.6	4.6
ESE	5.1	3.1	.5	.2								9.0	3.4
SE	3.2	2.2	.2									5.6	3.4
SSE	1.8	3.0	.2									5.0	4.0
S	3.2	2.0	.8									6.1	3.6
SSW	1.3	.7	.1									2.2	3.1
SW	1.1	.7	.1									1.9	3.4
WSW	2.0	3.3	1.3	.1								6.8	4.8
W	2.8	4.4	3.5	.1								10.8	5.4
WNW	1.1	1.2	1.0	.2	.2							3.7	6.3
NW	1.3	1.2	.7									3.2	4.4
NNW	1.2	.8	.2									2.3	3.9
VARBL	.1		5.3	1.1								6.5	8.8
CALM												20.7	
	30.4	30.3	16.3	2.0	.4							100.0	3.7

TOTAL NUMBER OF OBSERVATIONS 836

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS OCT MONTH
1200-1400 HOURS (LST)
ALL WEATHER CLASS
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	.5										1.3	3.3
NNE	.4	.6										1.0	4.0
NE	.2	1.2	.1									1.6	5.2
ENE	1.1	2.2	.4									3.6	4.2
E	2.3	3.0	1.1	.4								6.7	5.3
ESE	2.6	3.2	.7	.1								6.7	4.2
SE	3.1	4.7	1.0									8.7	4.2
SSE	3.1	3.0	.4									6.5	3.7
S	3.9	2.7	.8									7.5	3.7
SSW	1.3	1.7	1.2									4.2	5.0
SW	1.1	1.3	.8									3.2	4.6
WSW	1.4	2.6	2.4	.2								6.7	5.9
W	3.1	6.2	2.6	1.0								12.9	5.6
WNW	1.4	1.7	1.6	.2								4.9	5.6
NW	1.2	1.6	1.8	.4								4.9	6.0
NNW	1.3	1.3	.1									2.7	3.4
VARBL		.2	6.1	2.3	.6							9.2	9.9
CALM												7.8	
	28.4	37.6	21.0	4.5	.6							100.0	4.9

TOTAL NUMBER OF OBSERVATIONS 837

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

1 5870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

OCT
MONTH

ALL WEATHER
CLASS

1500-1700
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.9	.5										2.4	2.6
NNE	.6	.4										1.0	2.6
NE	.6	.4										1.0	2.9
ENE	1.7	1.9	.4									3.9	4.1
E	3.2	3.9	1.6									8.7	4.4
ESE	4.2	4.3	.5	.1								9.1	3.9
SE	2.7	3.5	.1									6.3	3.6
SSE	2.3	2.4	.2									4.9	3.4
S	2.5	1.7	.2									4.4	2.6
SSW	1.4	1.3	.4									3.1	3.6
SW	1.6	1.1	.4	.1								3.1	4.1
WSW	2.7	2.3	1.6	.1								6.7	4.8
W	3.0	6.0	3.2	.6								12.8	5.6
WNW	1.8	3.0	1.6	.6								5.9	5.7
NW	1.6	1.0	.5	.1								3.1	4.2
NNW	.8	.7	.1									1.7	3.4
VARBL			4.7	1.0	.1	.1						5.9	9.9
CALM												15.1	
	32.6	34.2	15.3	2.6	.1	.1						100.0	4.0

TOTAL NUMBER OF OBSERVATIONS

837

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

STATION 16870 STATION NAME GRAFENWOHR AAF DL YEARS 73-81
CLASS ALL WEATHER
CONDITION
OCT NORTH
1800-2000 HOURS (LST)

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.2	.2	.1									1.6	3.1
NNE	.6	.1										.7	2.3
NE	1.1	.2										1.3	2.4
ENE	2.5	.8	.1									3.5	2.7
E	7.2	5.1	.1									12.4	3.2
ESE	2.6	.8	.2									3.7	2.7
SE	1.0	.6										1.6	3.3
SSE	.6	.4										1.0	2.8
S	1.2	.8										2.0	3.2
SSW	.6	.6										1.2	3.7
SW	.6	.2	.1									1.0	4.5
WSW	2.0	1.7	.6									4.3	3.9
W	3.5	5.5	3.1	.4								12.4	5.2
WNW	1.2	2.0	1.3									4.5	5.2
NW	.5	.2	.4	.1								1.2	5.2
NNW	1.0	.2										1.2	2.7
VARBL			1.6	.6								2.2	9.4
CALM												44.3	
	27.3	19.7	7.7	1.1								100.0	2.3

TOTAL NUMBER OF OBSERVATIONS 836

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6970 STATION GRAFENWOHR AAF DL STATION NAME 73-81 YEARS OCT MONTH 2100-2300 HOURS (LST)

ALL WEATHER CLAM

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.6	.7	.1									1.4	4.2
NNE	.6	.2										.8	2.7
NE	1.3	.1										1.4	2.3
ENE	1.1	.8	.1									2.0	3.6
E	5.7	2.6	.7									9.1	3.3
ESE	1.8	.4										2.2	2.4
SE	2.4	.2										2.6	2.1
SSE	1.1	.1										1.2	2.4
S	.7	.2										1.0	2.8
SSW	1.0	.1	.1									1.2	2.9
SW	.8	.4	.2									1.4	4.1
WSW	1.2	1.1	.7									3.0	4.3
W	3.5	6.3	1.4	.2								11.5	4.6
WNW	1.3	2.4	1.0	.4								5.0	5.4
NW	.6	.6	.1									1.3	3.8
NNW	.8	.4										1.2	3.0
VARBL			1.9	.4								2.3	9.2
CALM												51.4	
	24.5	16.7	6.5	1.0								100.0	2.0

TOTAL NUMBER OF OBSERVATIONS 837

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 GRAFENWOHR AAF DL 73-81 OCT
STATION STATION NAME YEARS MONTH

ALL WEATHER ALL
CLASS HOURS (LST)

CONDITION

SPEED (KNTS) DIR	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	.4	.1									1.2	3.1
NNE	.5	.3										.8	2.8
NE	.7	.3	.0									1.0	3.2
ENE	1.5	1.2	.2	.0								2.8	3.6
E	4.2	3.7	1.0	.1	.0							9.0	4.0
ESE	3.5	1.8	.3	.1								5.7	3.2
SE	2.4	1.6	.2									4.1	3.3
SSE	1.5	1.2	.1									2.9	3.5
S	2.0	1.2	.3									3.5	3.4
SSW	1.1	.7	.2	.0								2.1	3.6
SW	1.1	.7	.4	.0								2.2	4.2
WSW	1.9	2.1	1.0	.1								4.9	4.6
W	3.1	5.4	2.7	.3								11.5	5.2
WNW	1.2	1.6	1.0	.2	.0							4.1	5.4
NW	.9	.8	.5	.1								2.3	4.7
NNW	1.1	.7	.1									1.8	3.3
VARBL	.0	.0	2.9	.7	.1	.0						3.7	9.3
CALM												36.2	
	27.5	23.6	10.9	1.6	.1	.0						100.0	2.8

TOTAL NUMBER OF OBSERVATIONS 6691

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

106870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

NOV
MONTH

ALL WEATHER
CLASS

0000-0200
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.6	.1										.8	2.3
NNE	.1											.1	1.0
NE	.4	.1										.5	2.5
NNE	1.1	.5	.1									1.8	3.4
E	3.6	1.9	.1									5.7	3.0
ESE	2.6	.6										3.3	2.5
SE	2.5	1.1	.1									3.8	3.0
SSE	1.1	1.1										2.3	3.2
S	1.6	1.6	.1									3.4	3.6
SSW	.6	1.1	.4									2.1	4.5
SW	1.0	1.4	.5									2.9	4.5
WSW	2.0	2.0	1.5	.3								5.8	5.1
W	2.5	5.4	5.3	2.1	.3							15.6	7.0
WNW	1.1	2.0	1.0	.5	.1							4.8	6.4
NW	.4	1.8	.6	.1								2.9	5.1
NNW	1.5	.8										2.3	2.8
VARBL			1.9	.5								2.4	9.3
CALM												39.8	
	23.0	21.6	11.7	3.5	.4							100.0	3.0

TOTAL NUMBER OF OBSERVATIONS 796

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

16871 STATION GRAFENWOHR AAF DL 73-81 YEARS NOV
ALL WEATHER CLIM 0300-0500 HOURS (LST)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.0	.3										1.3	2.8
NNE	.1	.3										.4	4.0
NE	.5	.3										.8	2.8
ENE	1.0	1.1	.3									2.4	3.9
E	4.0	1.3	.1									5.4	2.7
ESE	3.0	1.0										4.0	2.5
SE	1.8	.6	.1									2.5	3.4
SSE	1.1	1.3										2.1	3.2
S	2.0	2.0	.3									4.3	3.8
SSW	.9	.9	.3									2.0	3.6
SW	1.4	.6	.3									2.3	3.7
WSW	1.3	2.9	1.0	.5								5.7	5.8
W	5.4	5.5	3.8	1.6	.1							16.5	5.7
WNW	1.5	1.5	1.4	1.4								5.8	7.0
NW	.8	1.6	.5	.1								3.0	5.0
NNW	.6	.4										1.0	2.9
VARBL			1.9	.5	.1							2.5	9.7
CALM												38.0	
	26.4	21.3	9.8	4.2	.3							100.0	3.0

TOTAL NUMBER OF OBSERVATIONS 794

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS NOV NORTH
ALL WEATHER CLASS
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	.4	.1									1.3	1.9
NNE	.3											.3	2.5
NE	.5	.4	.1									1.0	3.5
ENE	.8	.9	.5									2.1	4.9
E	3.5	1.8										5.3	3.0
ESE	3.6	.8										4.4	2.4
SE	1.6	1.0	.3									2.9	3.2
SSE	1.1	.6	.1									1.9	3.4
S	1.9	1.3	.3									3.4	3.9
SSW	2.5	.6										3.1	2.5
SW	1.9	1.3										3.1	3.1
WSW	2.4	2.8	.9	.3								6.3	4.4
W	4.6	5.5	4.3	2.3	.1							16.8	6.2
WNW	1.9	2.0	1.1	.8	.1							5.9	6.1
NW	1.1	1.4	.5	.3								3.3	4.8
NNW	1.8	.4										2.1	2.5
VARBL			1.9	.5	.1							2.5	9.7
CALM												34.5	
	30.2	20.9	10.0	4.0	.4							100.0	3.1

TOTAL NUMBER OF OBSERVATIONS 798

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

STATION 1 6870 STATION NAME GRAFENWOHR AAF DL YEARS 73-81 MONTH NOV
CLASS ALL WEATHER PERIOD 0900-1100
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.2	.5	.3	.1								1.9	4.3
NNE	.3	.4	.3									.9	5.3
NE	.8	.3	.3									1.3	3.9
ENE	.8	.6	.6									2.0	4.8
E	3.8	1.1	.6									5.5	3.3
ESE	3.8	2.1	.1									6.0	3.1
SE	2.3	1.8	.4									4.4	3.5
SSE	2.6	1.6										4.3	3.0
S	2.9	1.8	.6									5.3	3.7
SSW	2.0	1.8	.4									4.1	3.6
SW	1.3	1.6	.5									3.4	4.5
WSW	1.3	3.9	1.8	.6								7.5	5.7
W	2.1	5.9	6.5	1.3								15.8	6.7
WNW	1.0	2.1	1.8	.5	.1							5.5	6.8
NW	.9	2.4	.6	.1								4.0	5.2
NNW	1.6	1.0	.1									2.8	3.2
VARBL			3.4	1.0								4.4	9.6
CALM												21.1	
	28.2	28.8	18.2	3.6	.1							100.0	4.0

TOTAL NUMBER OF OBSERVATIONS 798

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF OL 73-81 YEARS NOV
1200-1400 HOURS (LST)

ALL WEATHER

CLASS

CONDITION

SPEED (KNTS) DIR	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.6	.9	.3	.1								1.9	5.3
NNE	.8	.8	.1									1.6	3.4
NE	.6	.4	.5									1.5	4.8
ENE	.9	.9	.5									2.3	4.6
E	1.8	1.0	.6	.1								3.5	4.3
ESE	3.5	2.1	1.0									6.6	3.7
SE	2.3	2.5	.5	.1								5.4	4.2
SSE	2.9	2.1	.3									5.3	3.3
S	3.3	3.1	.5									6.9	3.8
SSW	1.3	2.1	.5									3.9	4.5
SW	.8	1.4	.5									2.6	4.8
WSW	1.5	4.5	2.1	.6								8.8	6.0
W	1.9	7.4	5.4	2.1								16.8	6.8
WNW	1.3	1.8	2.4	1.5	.1							7.0	7.6
NW	1.4	2.0	1.6									5.4	5.5
NNW	1.8	2.0	.5	.1								4.4	4.3
VARBL		.3	4.3	1.1	.1							5.8	9.3
CALM												10.4	
	26.3	35.6	21.6	5.9	.3							170.0	4.9

TOTAL NUMBER OF OBSERVATIONS 798

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION RAFENWOHR AAF DL 73-81 YEARS NOV
STATION NAME MONTH
ALL WEATHER CLASS 1500-1700 HOURS (LST)

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.3	1.0										2.3	3.1
NNE	.5	.6	.1									1.3	4.0
NE	.8	.1	.1									1.0	3.3
ENE	1.1	.8	.3									2.1	3.7
E	2.3	2.0	.6									4.9	4.1
ESE	2.0	1.0	.3									3.3	3.2
SE	2.9	1.5	.4									4.8	3.2
SSE	2.6	1.8	.1									4.5	3.3
S	3.5	1.8	.4									5.6	3.4
SSW	2.0	1.1										3.1	3.3
SW	2.4	1.5	.4									4.3	3.8
WSW	2.6	3.8	.9	.3								7.5	4.7
W	4.6	8.3	4.6	1.3								18.8	5.6
WNW	1.5	1.8	2.9	.8								6.9	6.9
NW	1.4	1.6	1.3	.4								4.6	5.5
NNW	1.9	.9	.1									2.9	3.3
VARBL			2.9	.3	.1							3.3	8.4
CALM												18.9	
	33.3	29.4	15.3	2.9	.1							100.0	3.8

TOTAL NUMBER OF OBSERVATIONS 798

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS NOV NORTH
1800-2000 HOURS (L.S.T.)
ALL WEATHER CLASS
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8											.8	2.5
NNE	.1											.1	2.0
NE	.8	.1										.9	2.1
ENE	.5	.4	.1									1.0	3.8
E	2.8	1.8	1.0									5.5	4.1
ESE	4.9	1.1										6.0	2.4
SE	2.0	.6	.3									2.9	3.0
SSE	2.0	.6										2.6	2.8
S	2.9	1.6	.3									4.8	3.3
SSW	.8	.3	.1									1.1	3.4
SW	1.4	.9	.1									2.4	3.5
WSW	2.0	2.5	.5	.8								5.8	5.2
W	2.9	7.3	4.9	1.0	.1							16.2	6.7
WNW	.9	2.4	1.1	.6	.1							5.1	6.6
NW	1.0	1.4	.6	.3								3.3	5.1
NNW	1.6	.6	.1									2.4	3.1
VARBL			2.8	.3	.1							3.1	8.9
CALM												36.1	
	27.2	21.6	11.9	2.9	.4							100.0	3.0

TOTAL NUMBER OF OBSERVATIONS 798

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AF WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

STATION 16870 STATION NAME GRAFENWOHR AAF DL YEARS 73-81 MONTH NOV
CLASS ALL WEATHER HOURS (LST) 2100-2300
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.6	.4	.1									1.1	3.6
NNE	.1											.1	2.0
NE	.3	.5										.8	3.5
ENE	1.6	.5	.3									2.4	3.3
E	3.8	1.6	.6									6.0	3.2
ESE	2.9	.5										3.4	2.4
SE	1.8	.3										2.0	2.4
SSE	1.9	1.3		.1								3.3	3.2
S	1.8	1.9	.4									4.0	4.1
SSW	1.3	.6	.4									2.3	3.9
SW	.8	1.0	.1	.1								2.0	4.6
WSW	1.5	2.0	1.5	.1								5.1	5.5
W	3.1	6.3	5.4	.8	.3							15.8	6.1
WNW	1.1	1.0	1.1	.9								4.1	6.5
NW	1.3	1.4	.8	.3								3.6	5.3
NNW	.5	.8	.1									1.4	3.4
VARBL			3.3	.4								3.6	8.6
CALM												38.9	
	24.2	19.9	14.1	2.6	.3							100.0	3.0

TOTAL NUMBER OF OBSERVATIONS 797

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

176670 STATION GRAFENWOHR AAF DL 73-81 YEARS NOV
STATION NORTH
ALL WEATHER CLASS
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	.4	.1	.0								1.4	3.7
NNE	.3	.3	.1									.6	3.8
NE	.6	.3	.1									1.0	3.5
ENE	1.0	.7	.3									2.0	4.1
E	3.2	1.6	.5	.0								5.2	3.4
ESE	3.3	1.2	.2									4.6	2.8
SE	2.1	1.2	.3	.0								3.6	3.4
SSE	1.9	1.3	.1	.0								3.3	3.2
S	2.5	1.9	.3									4.7	3.7
SSW	1.4	1.1	.3									2.7	3.7
SW	1.3	1.2	.3	.0								2.9	4.0
WSW	1.8	3.0	1.3	.4								6.6	5.3
W	3.4	6.4	5.0	1.6	.1							16.5	6.3
WNW	1.3	1.8	1.6	.9	.1							5.6	6.8
NW	1.0	1.7	.8	.2								3.8	5.2
NNW	1.4	.8	.1	.0								2.4	3.3
VARBL		.0	2.8	.6	.1							3.4	9.2
CALM												29.7	
	27.4	24.9	14.1	3.7	.3							100.0	3.5

TOTAL NUMBER OF OBSERVATIONS 6377

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

STATION 106870 STATION NAME GRAFENWOHR AAF DL YEARS 73-81 MONTHS DEC
CLASS ALL WEATHER HOURS (L & T) 0000-2200
CONDITION _____

SPEED (KNTS) DIR	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.6	.4										1.0	3.0
NNE	.7	.3										1.0	2.7
NE	.3	.1										.4	4.0
ENE	.7	.7	.3									1.7	4.4
E	3.8	1.5	.3									5.6	3.3
ESE	5.9	1.4										7.3	2.6
SE	2.4	.7										3.1	3.0
SSE	2.5	.4	.1									3.1	2.7
S	1.7	.7	.6	.3								3.2	4.7
SSW	1.4	1.3	.4									3.1	3.9
SW	.6	.8	.3									1.7	4.3
WSW	2.1	1.7	2.2	.1								6.2	5.2
W	2.9	6.4	6.2	2.7	.1							18.3	6.8
WNW	1.0	1.3	1.4	1.3								4.9	7.6
NW	.3	1.4	.3									2.0	4.9
NNW	.3	.6										.8	4.0
VARBL			2.4	.8								3.2	9.7
CALM												33.6	
	27.0	19.7	14.4	5.2	.1							100.0	3.4

TOTAL NUMBER OF OBSERVATIONS 715

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

STATION 106870 STATION NAME GRAFENWOHR AAF DL YEARS 73-81 MONTH DEC
CLASS ALL WEATHER HOURS (LST) 0300-0500
CONDITION

SPEED (KNTS) DIR	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.7	.7	.1									1.5	3.7
NNE	.1	.1										.3	2.5
NE	.4	.4										.8	3.5
ENE	.7	.5	.3									1.5	4.3
E	4.2	1.9	.3									6.3	3.1
ESE	5.7	1.6	.4									7.7	2.8
SE	2.6	.9										3.6	2.9
SSE	2.0	.5	.1									2.6	3.1
S	1.2	2.1	.1	.4								3.8	5.0
SSW	.7	1.1	.1									1.9	3.7
SW	1.5	.9	.9	.1								3.4	4.8
WSW	1.7	2.8	2.0	.3								6.7	5.4
W	2.2	5.7	6.6	2.8	.3							17.6	7.3
WNW	1.1	.7	1.3	1.2								4.2	7.3
NW	.7	1.1	.5	.1								2.4	5.8
NNW	.8	.4										1.2	3.1
VARBL			2.0	.1	.1							2.2	9.1
CALM												32.3	
	26.2	21.3	14.8	5.0	.4							100.0	3.5

TOTAL NUMBER OF OBSERVATIONS 756

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6670 STATION GRAFENWOHR AAF DL 73-81 YEARS DEC MONTH
STATION NAME CLASS ALL WEATHER
CONDITION

SPEED (KNTS) DIR	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.5	.6										1.1	3.1
NNE	.3	.1										.4	2.3
NE	.6	.1	.3									1.0	4.1
ENE	1.3	.4	.3									1.9	3.7
E	4.2	2.2	.4									6.8	3.3
ESE	5.6	.9										6.5	2.5
SE	3.2	.5	.1									3.8	2.4
SSE	2.0	.9	.1									3.1	3.3
S	2.4	1.4	.1									4.0	3.5
SSW	1.1	.8	.1									2.0	3.8
SW	1.4	1.1	.5									3.1	4.5
WSW	1.3	3.1	1.9	.1								6.4	5.6
W	1.8	5.7	6.0	2.2								15.7	7.1
WNW	.8	2.3	1.0	.8								4.9	6.3
NW	.8	.8	.4	.4								2.3	5.8
NNW	.4	.5	.5									1.4	5.6
VARBL			1.8	1.0								2.8	9.9
CALM												32.8	
	27.7	21.5	13.5	4.5								100.0	3.4

TOTAL NUMBER OF OBSERVATIONS 783

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

106870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

DEC
MONTH

ALL WEATHER
CLASS

0900-1100
HOURS (L S T.)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.4	.4	.1									.9	4.1
NNE		.3										.3	4.5
NE	1.1	.3										1.4	3.7
ENE	1.3	.3	.3									1.8	3.7
E	3.6	3.7	.6									7.9	3.9
ESE	5.5	1.1	.1									6.7	2.5
SE	3.8	.8	.1									4.7	2.6
SSE	1.9	.9	.4									3.2	3.4
S	2.4	2.7	.5									5.6	4.0
SSW	1.7	1.3	.1									3.1	3.8
SW	1.5	2.0	.5	.1								4.2	4.8
WSW	1.5	3.2	1.3	.3								6.2	5.2
W	2.7	6.0	6.0	2.3								16.3	7.1
WNW	.8	1.7	1.7	.5								4.6	6.6
NW	.9	.9	.6	.4								2.8	5.9
NNW	.6	.5	.5	.1								1.8	5.3
VARBL			2.4	1.8	.1							4.3	10.5
CALM												24.3	
	29.0	25.8	15.3	5.5	.1							100.0	3.9

TOTAL NUMBER OF OBSERVATIONS 786

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

16870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

DEC
MONTH

ALL WEATHER
CLASS

1230-1400
HOURS (LST)

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.3	.6										.9	3.7
NNE	.3		.1									.4	3.3
NE	1.0	.6	.3									1.9	3.8
ENE	.4	1.0	.5									1.9	5.1
E	3.3	1.8	.8	.1								6.0	4.0
ESE	4.0	3.6	.1									7.7	3.5
SE	3.8	1.4	.5									5.8	3.3
SSE	2.4	1.7	.4									4.5	3.5
S	2.8	4.2	.8									7.8	4.2
SSW	1.7	2.2	.3									4.1	3.8
SW	1.2	.8	.8	.1								2.8	4.9
WSW	1.9	2.8	1.7	.1								6.5	5.0
W	3.1	6.7	9.0	1.9	.3							20.3	7.2
WNW	1.0	1.3	2.2	.5								5.0	6.9
NW	.8	1.8	1.0	.6								4.2	6.5
NNW	.6	1.3	.1									2.1	4.2
VARBL		.1	3.7	1.8	.3							5.9	10.0
CALM												12.2	
	28.6	31.3	22.2	5.3	.5							100.0	4.8

TOTAL NUMBER OF OBSERVATIONS

780

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

106870 STATION GRAFENWOHR AAF DL 73-81 YEARS DEC
1500-1700 HOURS (L.S.T.)

ALL WEATHER

CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.8	.4	.3									1.4	4.3
NNE													
NE	.5											.5	2.5
ENE	.5	1.3										1.8	3.9
E	4.0	3.1	.9	.3								3.2	4.0
ESE	4.3	1.8										6.1	2.9
SE	3.2	1.4	.3									4.9	3.1
SSE	2.4	1.0	.1									3.6	3.4
S	3.1	2.2	.1									5.4	3.5
SSW	1.5	1.2	.3									3.0	3.7
SW	1.0	1.4	.5									3.0	4.5
WSW	1.5	3.6	1.5	.1								6.8	5.3
W	4.3	7.9	7.7	1.7	.4							21.9	6.5
WNW	.6	1.7	1.3	.5								4.1	6.4
NW	.9	1.4	.4	.3								3.0	5.0
NNW	.8	.1	.4	.1								1.4	5.3
VARBL	.1	.1	3.9	.6	.3							5.0	9.3
CALM												19.8	
	29.6	28.6	17.7	3.6	.6							100.0	4.1

TOTAL NUMBER OF OBSERVATIONS 776

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIF WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS DEC MONTH
ALL WEATHER CLASS 1800-2000 HOURS (LST)
CONDITION

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.3		.3									.5	5.5
NNE	.3	.1										.4	3.3
NE	.5											.5	2.5
ENE	.9	1.0	.4									2.4	4.3
E	3.9	3.4	.4									7.7	3.5
ESE	5.2	1.3	.1									6.7	2.6
SE	2.6	1.0	.3									3.9	2.8
SSE	1.7	1.0	.1									2.9	3.3
S	2.2	1.2	.4									3.8	3.4
SSW	.4	1.0	.1									1.6	4.4
SW	1.2	1.3	.4									2.9	4.4
WSW	2.4	2.5	1.7	.4								6.9	5.4
W	4.5	6.6	6.0	1.7								18.7	6.0
WNW	1.6	1.2	1.2	.4	.1							4.5	6.1
NW	.7	.5	.8	.1								2.1	6.2
NNW	.4	.3	.1									.8	3.5
VARBL			2.1	1.3								3.4	9.6
CALM												30.3	
	28.7	22.5	14.4	3.9	.1							100.0	3.4

TOTAL NUMBER OF OBSERVATIONS 763

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIP WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

106870 GRAFENWOHR AAF DL 73-81 DEC
STATION STATION NAME YEARS MONTH
ALL WEATHER
CLASS
CONDITION
2100-2300
HOURS (LST)

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.3	.1										.4	2.7
NNE	.6											.6	1.8
NE	.4	.6										1.0	3.7
ENE	1.1	.6	.1									1.8	3.4
E	4.4	2.6	.8									7.9	3.5
ESE	5.0	1.2										6.2	2.6
SE	1.8	1.4										3.2	3.3
SSE	1.7	.6										2.2	2.5
S	1.8	2.2	.1									4.2	3.7
SSW	1.2	.7	.3									2.2	3.8
SW	1.1	1.0	1.0									3.1	5.1
WSW	2.9	3.1	2.1	.4								8.5	5.2
W	3.9	5.8	6.9	1.2								17.9	6.1
WNW	.8	1.0	2.1	.6								4.4	6.9
NW	.7	1.1	.7	.1								2.6	5.4
NNW	.6		.3									.8	3.8
VARBL		.1	2.4	.8								3.3	9.3
CALM												29.6	
	28.3	22.1	16.8	3.2								100.0	3.5

TOTAL NUMBER OF OBSERVATIONS 720

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

106870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

DEC
MONTH

ALL WEATHER
CLASS

ALL
HOURS (LST)

CONDITION

SPEED KNTS) DIR	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	.5	.4	.1									1.0	3.8
NNE	.3	.1	.0									.4	2.8
NE	.6	.3	.1									1.0	3.5
ENE	.9	.7	.3									1.8	4.1
E	3.9	2.5	.6	.0								7.1	3.6
ESE	5.1	1.6	.1									6.9	2.8
SE	3.0	1.0	.2									4.1	2.9
SSE	2.1	.9	.2									3.2	3.2
S	2.2	2.1	.3	.1								4.8	4.0
SSW	1.2	1.2	.2									2.6	3.8
SW	1.2	1.2	.6	.0								3.0	4.7
WSW	1.9	2.8	1.8	.2								6.8	5.3
W	3.1	6.3	6.8	2.1	.1							18.3	6.8
WNW	1.0	1.4	1.5	.7	.0							4.6	6.8
NW	.7	1.1	.6	.3								2.7	5.8
NNW	.6	.5	.2	.0								1.3	4.5
VARBL	.0	.0	2.6	1.1	.1							3.8	9.7
CALM												26.7	
	28.2	24.2	16.2	4.5	.2							100.0	3.7

TOTAL NUMBER OF OBSERVATIONS 6079

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

SURFACE WINDS

1 6870 STATION GRAFENWOHR AAF DL 73-81 YEARS ALL
STATION NAME CLASS ALL
CONDITION HOURS (L S T)

SPEED (KNTS) DIR.	1 - 3	4 - 6	7 - 10	11 - 16	17 - 21	22 - 27	28 - 33	34 - 40	41 - 47	48 - 55	≥ 56	%	MEAN WIND SPEED
N	1.0	.7	.2	.0								1.9	3.7
NNE	.6	.4	.1	.0								1.2	3.5
NE	.9	.6	.2	.0								1.7	3.8
ENE	1.4	1.3	.5	.0								3.2	4.3
E	3.1	2.6	.7	.0	.0							6.5	4.0
ESE	2.7	1.4	.2	.0								4.3	3.3
SE	1.6	.9	.2	.0								2.7	3.4
SSE	1.2	.7	.2	.0								2.1	3.5
S	1.5	1.3	.3	.0								3.1	3.9
SSW	1.0	.9	.2	.0								2.0	4.0
SW	1.0	1.0	.3	.0								2.3	4.3
WSW	1.5	2.0	1.0	.1								4.6	5.0
W	3.0	5.0	3.8	.9	.0							12.7	5.9
WNW	1.2	2.1	1.8	.5	.0							5.7	6.1
NW	1.1	1.5	.9	.2	.0							3.7	5.4
NNW	1.3	1.0	.3	.0	.0							2.7	4.0
VARBL	.0	.1	2.4	.6	.1	.0						3.2	9.2
CALM												36.4	
	24.0	23.5	13.4	2.5	.1	.0						100.0	3.1

TOTAL NUMBER OF OBSERVATIONS 77601

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

SURFACE WINDS

PERCENTAGE FREQUENCY OF WIND
DIRECTION AND SPEED
(FROM HOURLY OBSERVATIONS)

STATION 176870 GRAFENWOHR AAF OL STATION NAME 73-81 YEARS ALL MONTH ALL HOURS (LST)

INSTRUMENT CLASS

CONDITION

CIG 200 TO 1400 FT W/ VSBY 1/2 MI OR MORE.

AND/OR VSBY 1/2 TO 2-1/2 MI W/CIG 200 FT OR MORE

SPEED (KNTS) DIR.	1-3	4-6	7-10	11-16	17-21	22-27	28-33	34-40	41-47	48-55	≥ 56	%	MEAN WIND SPEED
N	.7	.3	.1	.0								1.0	3.2
NNE	.3	.2	.0	.0								.6	3.5
NE	.6	.4	.1									1.1	3.6
ENE	1.0	.9	.3	.7								2.2	4.1
E	3.4	1.9	.5	.0								5.8	3.5
ESE	3.7	1.1	.1	.0								4.9	2.6
SE	2.5	1.1	.1									3.7	3.0
SSE	1.8	.8	.1	.0								2.7	3.1
S	1.7	1.3	.2	.0								3.3	3.6
SSW	1.1	.6	.1	.0								1.8	3.3
SW	1.1	.8	.3	.0								2.2	4.7
WSW	1.8	2.1	.9	.2								5.0	4.8
W	3.7	6.1	4.2	.9	.0							14.9	5.7
WNW	1.7	2.2	1.5	.2	.0							5.6	5.4
NW	1.1	1.3	.6	.1								3.1	4.6
NNW	1.1	.5	.1	.0								1.8	3.4
VARBL		.0	1.1	.4	.7	.0						1.5	9.4
CALM												38.8	
	27.2	21.7	10.3	1.9	.0	.0						100.0	2.7

TOTAL NUMBER OF OBSERVATIONS 18709

U S AIR FORCE
ENVIRONMENTAL TECHNICAL
APPLICATIONS CENTER

PART D

CEILING VERSUS VISIBILITY

This summary is a bivariate percentage frequency distribution by classes of ceiling from zero to equal to or greater than 20,000 feet and as a separate class "no ceiling", versus visibility in 16 classes from zero to equal to or greater than 10 miles. Data are derived from hourly observations, and three sets of tables are presented as follows:

1. Annual - all years and all hours combined
2. By month - all years and all hours combined
3. By month - by standard 3-hour groups

Due to the cumulative nature of this presentation, it is possible to determine the percentage frequency of occurrence for any given limit of ceiling or visibility separately, or in combination of ceiling and visibility. The totals progress to the right and downward. Ceiling may be determined independently by referring to totals in the extreme right hand column. Also, visibility may be determined independently by reference to the horizontal row of totals at the bottom of the page. The percentage frequency for which the station was meeting or exceeding any given set of minima may be determined from the figure at the intersection of the appropriate ceiling column and visibility row. Several examples in the use of these tables are shown on pages 2 and 3 below.

U. S. Weather Bureau and Navy stations did not report ceilings within the range 10,000 feet and higher prior to January 1949. Summaries prepared from data for these stations using the earlier period and data subsequent to January 1949 will be modified to limit ceilings to 10,000 feet. Short periods of record prior to 1949 for these stations will be eliminated from the summary. For Air Force stations, the "no ceiling" category includes clear and scattered conditions, and ceilings above 20,000 feet for period through June 1948. Beginning in July 1948 for Air Force stations and January 1949 for USWB and U. S. Navy stations the "no ceiling" category consists of observations with less than 6/10 total sky cover and those cases where total sky cover is 6/10 or more, but not more than 1/2 of the sky cover is opaque.

Beginning in January 1968, METAR stations report visibilities to 6 miles and then greater than 6 miles. Thus, for METAR stations, the category equal to or greater than 10 miles is not printed in the tables, unless the summary was for a period ending before January 1968.

Continued on Reverse Side

EXAMPLES FOR USE OF CEILING VERSUS VISIBILITY TABLES IN THIS TABULATION

CEILING (FEET)	VISIBILITY (STATUTE MILES)															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	$\geq 2\frac{1}{2}$	≥ 2	$\geq 1\frac{1}{2}$	$\geq 1\frac{1}{4}$	≥ 1	$\geq \frac{3}{4}$	$\geq \frac{1}{2}$	$\geq \frac{1}{4}$	≥ 0.16	≥ 0.1	≥ 0
NO CEILING																
IV 1800																
IV 1500					91.0											92.6
IV 1200																
IV 1000																
IV 900																
IV 800																
IV 700																
IV 600																
IV 500										97.4						98.1
IV 400																
IV 300																
IV 200																
IV 100																
IV 0					95.4		96.9			98.3						100.0

EXAMPLE # 1 Read ceiling values independently of visibility under column at right headed ≥ 0 .
For instance, from the table: Ceiling ≥ 1500 feet = 92.6%.
Ceiling ≥ 500 feet = 98.1%.

EXAMPLE # 2 Read visibility values independently of ceilings on bottom line opposite ≥ 0 . From the table:
Visibility ≥ 3 miles = 95.4%.
Visibility ≥ 2 miles = 96.9%.
Visibility ≥ 1 mile = 98.3%.

EXAMPLE # 3 To obtain combinations of ceiling with visibility, read figure at intersection of the two categories; i.e.: Ceiling ≥ 1500 feet with visibility ≥ 3 miles = 91.0%.

ADDITIONAL EXAMPLES

EXAMPLE # 4 Values below minimums stated in the table may be obtained by subtracting the value given in the table from 100%. Thus, to obtain the percentage of observations with ceiling < 1500 feet and/or visibility < 3 miles, subtract the value read from the table at the intersection, which is 91.0, from 100.0. The answer 9.0 is the percentage of observations with ceiling < 1500 feet and/or visibility < 3 miles.

Likewise, the percentage of observations with ceiling < 500 feet and/or visibility < 1 mile is 2.6, obtained by subtracting 97.4 from 100.0.

EXAMPLE # 5 To find the percentage of observations falling within the two categories given in example above, subtract the value read from the table for the first set of limits from the value in the table for the second set of limits. The difference will be the percentage of observations meeting the lower set of limits, but not meeting the higher set of limits.

The value 91.0 read from the table at the intersection of ≥ 1500 feet with ≥ 3 miles, subtracted from 97.4 read from the table at the intersection of ≥ 500 feet with ≥ 1 mile is equal to 6.4%. Thus; 6.4 percent of the observations meet the criteria: "ceiling ≥ 500 feet with visibility > 1 mile, but < 3 miles; or ceiling ≥ 500 feet, but < 1500 feet with visibility ≥ 1 mile."

Since these tabulations are prepared in several ways including by month, by 3-hour groups it is possible to determine diurnal variations of ceiling and visibility limits as well as probabilities of various ceiling-visibility combinations.

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

6670 WRAFENWHP AAF DL

73-81

JAN

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

0000-0000

CEILING FEET	VISIBILITY, STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.75	≥0.5	≥0.25	≥0.15	≥0.1	≥0.05	≥0.01
≥20000	3.4	5.9	7.1	11.6	14.5	14.5	15.8	16.4	16.7	17.2	17.4	17.6	17.6	17.8	17.8	18.2
≥18000	4.6	7.2	8.3	13.0	16.2	16.2	18.2	18.8	19.1	19.6	19.8	20.0	20.0	20.2	20.2	20.3
≥16000	5.1	7.7	8.8	13.9	17.1	17.1	19.1	19.7	20.0	20.5	20.7	20.9	20.9	21.1	21.1	21.5
≥14000	5.1	7.7	8.8	13.9	17.1	17.1	19.1	19.7	20.0	20.5	20.7	20.9	20.9	21.1	21.1	21.5
≥12000	5.1	7.7	9.1	14.3	17.4	17.4	19.5	20.1	20.4	20.9	21.1	21.2	21.2	21.5	21.5	21.7
≥10000	5.3	8.1	9.5	14.8	18.0	18.0	20.4	21.0	21.2	21.7	22.0	22.1	22.1	22.4	22.4	22.6
≥8000	5.3	8.3	9.7	15.0	18.2	18.2	20.6	21.2	21.5	22.0	22.3	22.4	22.4	22.6	22.6	23.0
≥6000	5.7	8.8	10.2	15.8	19.0	19.0	21.4	22.0	22.3	22.8	23.0	23.1	23.1	23.4	23.4	23.8
≥4000	5.7	8.8	10.2	16.1	19.6	19.6	22.0	22.6	23.0	23.5	23.8	23.9	23.9	24.1	24.1	24.5
≥2000	5.8	9.0	10.4	16.2	19.7	19.7	22.1	22.8	23.1	23.6	23.9	24.0	24.0	24.3	24.3	24.7
≥1000	6.2	9.6	11.0	17.1	20.7	20.7	23.6	24.3	24.9	25.4	25.7	25.8	25.9	26.2	26.2	26.5
≥500	6.4	10.4	11.8	18.2	21.9	21.9	25.0	25.7	26.4	26.9	27.2	27.6	27.8	28.1	28.1	28.4
≥200	7.3	11.9	13.4	19.8	23.8	23.8	27.1	28.2	29.0	29.5	30.0	30.3	30.6	30.8	30.8	31.2
≥100	7.3	12.0	13.5	20.1	24.0	24.0	27.6	29.1	29.8	30.3	30.8	31.2	31.5	31.7	31.7	32.1
≥50	8.5	13.4	15.3	23.5	27.6	27.6	31.2	32.7	33.5	34.3	34.8	35.1	35.7	35.9	35.9	36.3
≥20	10.0	15.4	17.3	26.8	31.4	31.4	35.9	37.4	38.2	38.9	39.4	39.8	40.3	40.6	40.6	41.0
≥10	11.8	18.2	20.6	32.1	37.9	37.9	43.1	45.1	46.3	47.5	48.0	48.4	48.9	49.2	49.2	49.6
≥5	12.5	19.1	21.6	33.5	39.8	39.8	45.6	47.7	49.1	50.3	50.6	51.2	51.7	52.0	52.0	52.3
≥2	13.8	20.7	23.4	36.0	42.7	42.7	50.3	53.6	55.0	56.4	57.0	57.4	57.9	58.2	58.2	58.5
≥1	15.8	22.9	25.7	41.1	49.1	49.1	59.2	61.9	63.5	65.7	66.4	67.0	67.5	67.8	67.8	68.1
≥0.5	16.2	23.5	27.1	43.5	52.1	52.1	61.4	66.4	67.9	71.0	71.7	72.4	73.1	73.3	73.3	73.7
≥0.25	16.2	23.6	27.3	44.4	53.0	53.1	62.5	67.5	69.0	72.4	73.2	74.0	74.6	74.8	74.8	75.2
≥0.15	16.2	23.6	27.4	45.5	54.7	54.9	65.7	70.8	72.3	75.7	76.5	77.2	77.9	78.1	78.1	78.5
≥0.1	16.2	24.0	27.8	46.4	55.8	56.3	67.8	73.2	75.0	78.5	79.3	80.0	80.7	80.9	80.9	81.3
≥0.05	16.2	24.0	27.9	47.3	56.6	57.3	69.2	75.1	77.5	81.4	82.2	82.9	83.6	83.8	83.8	84.2
≥0.01	16.2	24.0	27.9	47.3	56.9	57.5	69.7	76.4	79.8	84.5	85.5	86.3	87.1	87.4	87.4	87.7
≥0.001	16.2	24.0	27.9	47.8	57.9	58.5	70.7	77.7	81.2	86.6	87.6	88.6	89.5	89.8	89.8	90.5
≥0.0001	16.2	24.0	27.9	47.8	58.2	58.8	71.0	78.5	82.0	88.4	89.6	90.6	91.5	92.3	92.7	93.4
≥0.00001	16.2	24.0	27.9	47.8	58.2	58.8	71.0	78.5	82.0	89.0	90.5	91.8	93.0	94.2	94.6	95.8
≥0.000001	16.2	24.0	27.9	47.8	58.2	58.8	71.2	78.6	82.2	89.4	91.0	92.3	93.6	95.2	96.2	99.6
≥0.0000001	16.2	24.0	27.9	47.8	58.2	58.8	71.2	78.6	82.2	89.4	91.0	92.3	93.6	95.2	96.2	100.0

TOTAL NUMBER OF OBSERVATIONS 791

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AL WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 273 GRAFFEN-0HR AAF DL STATION NAME 73-81 YEAR 1955

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

0100-0500

CEILING FEET	VISIBILITY: STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005
NO CEILING	4.4	5.6	6.6	11.2	13.2	13.7	15.3	16.1	16.2	16.8	17.2	17.3	17.3	17.6	17.8	18.6
≥20000	5.6	7.0	8.0	12.6	15.0	15.5	17.3	18.1	18.2	18.8	19.2	19.3	19.3	19.6	19.8	20.6
≥18000	5.6	7.0	8.0	12.6	15.0	15.5	17.3	18.1	18.2	18.8	19.2	19.3	19.3	19.6	19.8	20.6
≥16000	5.6	7.0	8.0	12.6	15.0	15.5	17.3	18.1	18.2	18.8	19.2	19.3	19.3	19.6	19.8	20.6
≥14000	5.6	7.0	8.0	12.6	15.0	15.5	17.3	18.1	18.2	18.8	19.2	19.3	19.3	19.6	19.8	20.6
≥12000	5.6	7.0	8.0	12.6	15.0	15.5	17.3	18.1	18.2	18.8	19.2	19.3	19.3	19.6	19.8	20.6
≥10000	5.9	7.2	8.2	13.5	15.8	16.3	18.2	19.0	19.1	19.7	20.1	20.2	20.2	20.4	20.7	21.4
≥9000	6.7	7.4	8.4	13.6	16.0	16.5	18.3	19.1	19.2	19.8	20.2	20.3	20.3	20.6	20.8	21.6
≥8000	6.5	8.0	9.0	14.2	16.7	17.2	19.2	20.1	20.2	20.8	21.2	21.3	21.3	21.6	21.8	22.9
≥7000	6.7	8.2	9.4	14.7	17.2	17.7	19.8	20.7	20.8	21.4	21.8	21.9	21.9	22.2	22.4	23.2
≥6000	6.7	8.2	9.4	14.7	17.2	17.7	19.8	20.7	20.8	21.4	21.8	21.9	21.9	22.2	22.4	23.2
≥5000	7.6	9.2	10.3	16.0	18.6	19.1	21.6	22.4	22.8	23.4	23.8	23.9	23.9	24.2	24.4	25.2
≥4500	8.7	9.6	10.7	16.8	19.5	20.0	22.4	23.6	23.9	24.7	25.1	25.4	25.4	25.7	25.9	26.7
≥4000	8.9	10.7	11.8	18.3	21.1	21.6	24.6	26.3	26.7	27.4	27.8	28.2	28.2	28.4	28.7	29.4
≥3500	9.1	11.3	12.6	19.2	22.1	22.6	25.8	27.6	27.9	28.7	29.1	29.4	29.4	29.7	29.9	30.7
≥3000	10.2	13.0	14.6	21.9	25.2	25.7	29.4	31.4	31.6	32.7	33.0	33.4	33.5	33.8	34.0	34.8
≥2500	12.2	16.0	17.7	25.8	29.1	29.7	33.9	36.5	36.9	37.8	38.2	38.5	38.7	38.9	39.2	39.9
≥2000	14.7	18.2	20.4	30.2	34.2	34.8	39.4	42.0	42.4	43.8	44.1	44.5	44.6	44.9	45.1	45.9
≥1800	15.1	19.8	22.1	31.8	36.5	37.3	42.0	44.8	45.4	46.8	47.1	47.5	47.8	48.0	48.3	49.0
≥1600	17.1	22.2	24.4	34.8	40.3	41.0	48.0	51.6	52.2	53.9	54.4	54.7	55.1	55.4	55.6	56.4
≥1400	17.7	23.1	25.7	38.8	44.9	45.8	54.1	58.4	59.0	61.5	62.0	62.3	62.8	63.1	63.3	64.1
≥1200	18.6	24.1	27.3	41.8	49.0	49.9	59.5	63.7	64.3	67.5	68.0	68.5	69.1	69.3	69.6	70.3
≥1000	18.7	24.4	27.8	43.0	50.4	51.2	60.8	65.2	65.8	69.2	69.7	70.4	71.1	71.3	71.6	72.3
≥900	18.8	24.8	28.3	45.0	53.2	54.1	64.8	69.2	70.0	73.3	73.8	74.6	75.2	75.4	75.7	76.4
≥800	18.8	24.9	28.4	45.5	53.9	55.1	66.6	71.4	72.3	75.7	76.3	77.3	77.9	78.2	78.4	79.2
≥700	19.1	25.3	28.8	46.8	55.6	57.0	69.3	74.9	76.1	79.9	80.5	81.7	82.7	82.9	83.2	83.9
≥600	19.1	25.3	28.8	46.9	56.1	57.5	70.6	76.6	78.4	83.7	84.7	85.9	86.9	87.2	87.4	88.2
≥500	19.1	25.3	28.8	46.9	56.1	57.5	71.1	77.4	80.2	85.9	87.3	88.7	89.9	90.5	90.9	91.9
≥400	19.1	25.3	28.8	46.9	56.1	57.5	71.8	78.7	81.4	88.0	89.4	91.1	92.4	93.4	93.8	94.8
≥300	19.1	25.3	28.8	46.9	56.1	57.5	71.8	78.7	81.4	88.4	89.9	91.8	93.0	94.8	95.1	97.0
≥200	19.1	25.3	28.8	46.9	56.1	57.5	71.8	78.7	81.4	88.7	90.1	92.1	93.4	95.5	96.6	99.6
≥100	19.1	25.3	28.8	46.9	56.1	57.5	71.8	78.7	81.4	88.7	90.1	92.1	93.4	95.5	96.6	100.0

TOTAL NUMBER OF OBSERVATIONS 802

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 572 GRAFENWOHR AAF DL

73-81

JAN

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

600-0800

CEILING FEET	VISIBILITY STATUTE MILES																
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.75	≥0.5	≥0.25	≥0.15	≥0.1	≥0.05	≥0.025	≥0.01
NO CEILING	3.9	5.2	5.8	17.5	12.5	12.5	14.0	14.6	14.6	15.2	15.2	15.3	15.7	16.1	16.1	16.3	
≥20000	4.2	5.6	6.2	11.0	13.2	13.2	14.7	15.3	15.3	16.1	16.1	16.2	16.6	17.0	17.0	17.2	
≥18000	4.2	5.6	6.2	11.0	13.4	13.4	15.0	15.6	15.6	16.3	16.3	16.5	16.8	17.2	17.2	17.5	
≥16000	4.2	5.6	6.2	11.0	13.4	13.4	15.0	15.6	15.6	16.3	16.3	16.5	16.8	17.2	17.2	17.5	
≥14000	4.2	5.6	6.2	11.0	13.4	13.4	15.0	15.6	15.6	16.3	16.3	16.5	16.8	17.2	17.2	17.5	
≥12000	4.3	5.7	6.3	11.1	13.5	13.5	15.1	15.7	15.7	16.5	16.5	16.6	17.0	17.3	17.3	17.6	
≥10000	4.7	6.1	6.7	11.6	14.0	14.0	15.6	16.5	16.5	17.2	17.2	17.3	17.9	18.3	18.3	18.6	
≥9000	5.7	6.3	6.9	12.0	14.4	14.4	16.7	16.8	16.8	17.6	17.6	17.7	18.3	18.7	18.7	18.9	
≥8000	5.6	7.4	9.4	13.6	16.3	16.3	18.6	19.4	19.4	20.2	20.2	20.3	20.9	21.3	21.3	21.5	
≥7000	5.7	7.5	8.5	13.7	16.5	16.5	19.1	19.9	19.9	20.7	20.7	20.8	21.4	21.8	21.8	22.0	
≥6000	5.8	7.9	8.9	14.1	17.5	17.5	20.0	20.9	20.9	21.7	21.7	21.8	22.4	22.8	22.8	23.0	
≥5000	6.6	9.0	10.0	15.6	18.9	18.9	21.7	22.5	22.5	23.3	23.3	23.4	24.0	24.4	24.4	24.6	
≥4500	6.7	9.2	11.3	16.5	19.8	19.8	22.6	23.9	23.9	24.8	24.8	24.9	25.5	25.9	25.9	26.1	
≥4000	8.4	10.9	12.7	18.3	21.7	21.7	24.9	26.4	26.4	27.2	27.2	27.4	28.0	28.3	28.3	28.6	
≥3500	8.7	11.1	12.4	19.1	22.5	22.6	25.9	27.5	27.5	28.5	28.5	28.6	29.2	29.6	29.6	29.8	
≥3000	9.9	12.5	14.1	22.0	25.6	25.9	29.1	30.7	30.7	31.8	31.8	31.9	32.5	32.9	32.9	33.2	
≥2500	10.5	13.7	16.1	24.4	28.0	28.2	32.1	33.7	33.8	35.1	35.1	35.3	35.9	36.4	36.4	36.6	
≥2000	11.9	15.8	18.7	28.3	33.4	33.7	38.6	40.3	40.6	42.3	42.3	42.5	43.1	43.6	43.6	43.8	
≥1800	12.7	16.7	19.6	29.5	34.5	34.8	40.2	42.0	42.2	44.1	44.1	44.3	44.9	45.4	45.4	45.7	
≥1600	15.0	20.0	23.6	34.2	39.4	39.7	46.9	49.5	49.8	51.9	51.9	52.1	52.8	53.3	53.3	53.6	
≥1400	16.1	21.3	25.1	38.5	44.4	45.3	53.7	56.6	56.8	59.7	59.8	60.0	61.3	61.8	61.8	62.0	
≥1200	17.2	23.4	27.6	41.6	47.9	48.9	58.0	61.6	62.1	65.3	65.6	66.0	67.2	67.7	67.7	67.9	
≥1000	17.2	23.4	27.6	41.6	47.9	48.9	58.0	61.6	62.1	65.3	65.6	66.0	67.2	67.7	67.7	67.9	
≥900	17.2	23.4	27.8	42.5	49.4	50.4	59.8	63.7	64.2	67.8	68.1	68.4	69.7	70.2	70.2	70.4	
≥800	17.3	23.5	28.2	44.2	51.7	52.7	63.1	67.7	68.2	71.8	72.2	72.5	74.0	74.5	74.5	74.8	
≥700	17.6	24.0	28.7	45.5	53.1	54.1	65.1	70.2	70.7	74.8	75.2	75.5	77.0	77.5	77.5	77.7	
≥600	17.6	24.0	28.7	45.8	53.6	54.7	66.2	71.4	72.0	77.0	77.4	77.8	79.5	80.0	80.0	80.2	
≥500	17.7	24.1	29.2	47.2	55.2	56.3	68.9	74.8	75.5	81.3	81.7	82.3	84.2	85.0	85.0	85.3	
≥400	17.7	24.1	29.2	47.3	55.9	57.2	70.0	76.7	77.8	84.3	84.8	85.5	87.9	89.4	89.4	89.6	
≥300	17.7	24.1	29.2	47.3	56.1	57.3	70.2	77.4	78.6	86.4	87.7	88.0	90.6	92.3	93.2	93.7	
≥200	17.7	24.1	29.3	47.4	56.2	57.4	70.3	77.6	78.8	87.1	88.1	89.2	92.6	94.7	96.4	96.9	
≥100	17.7	24.1	29.3	47.4	56.2	57.4	70.3	77.6	78.8	87.5	88.5	89.7	93.1	95.8	98.4	99.5	
≥0	17.7	24.1	29.3	47.4	56.2	57.4	70.3	77.6	78.8	87.5	88.5	89.7	93.1	95.8	98.4	100.0	

TOTAL NUMBER OF OBSERVATIONS 808

USAF ETAC 0-14-5 (DL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 12870 WPAFFENHOHR AAF CL

YEAR 73-81

DATE JAN

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1980-1982

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005
NO CEILING	3.4	5.7	5.9	10.1	11.4	11.7	13.5	14.5	14.5	15.1	15.1	15.6	15.9	16.1	16.1	16.4
≥ 20000	4.4	6.2	7.5	12.5	14.3	14.6	16.7	17.7	17.7	18.6	18.6	19.1	19.4	19.9	19.9	20.2
≥ 18000	4.4	6.2	7.5	12.5	14.3	14.6	17.0	18.0	18.0	18.8	18.8	19.3	19.7	20.2	20.2	20.4
≥ 16000	4.4	6.2	7.5	12.5	14.3	14.6	17.0	18.0	18.0	18.8	18.8	19.3	19.7	20.2	20.2	20.4
≥ 14000	4.4	6.2	7.5	12.5	14.3	14.6	17.0	18.0	18.0	18.8	18.8	19.3	19.7	20.2	20.2	20.4
≥ 12000	4.7	6.4	7.7	12.8	14.5	14.9	17.3	18.3	18.3	19.2	19.2	19.7	20.2	20.5	20.5	20.8
≥ 10000	4.7	6.4	7.7	13.0	14.8	15.1	17.7	18.7	18.7	19.6	19.6	20.0	20.4	20.9	20.9	21.2
≥ 9000	4.7	6.4	7.7	13.2	14.9	15.3	17.8	18.8	18.8	19.7	19.7	20.2	20.5	21.0	21.0	21.3
≥ 8000	5.3	7.0	8.4	13.8	15.9	16.4	19.7	20.7	20.7	21.5	21.5	22.0	22.4	22.9	22.9	23.1
≥ 7000	6.7	8.0	9.3	14.9	17.1	17.6	21.0	22.0	22.0	22.9	22.9	23.4	23.7	24.2	24.2	24.5
≥ 6000	6.7	8.0	9.3	15.3	17.5	18.1	21.6	22.8	22.8	23.6	23.6	24.1	24.5	25.0	25.0	25.2
≥ 5000	6.5	7.1	10.5	17.7	19.3	19.9	23.9	25.0	25.0	26.0	26.0	26.4	26.8	27.3	27.3	27.6
≥ 4500	7.3	10.1	11.6	19.3	21.6	22.3	26.2	27.7	27.8	28.8	28.9	29.4	29.8	30.3	30.3	30.5
≥ 4000	7.5	10.5	12.1	19.9	22.4	23.0	27.2	28.8	28.9	30.0	30.1	30.6	31.0	31.6	31.7	32.0
≥ 3500	8.2	11.4	13.0	20.9	23.4	24.3	28.2	30.0	30.1	31.5	31.6	32.1	32.5	33.1	33.2	33.5
≥ 3000	9.5	13.0	14.9	22.9	25.7	26.4	31.0	33.0	33.2	34.6	34.7	35.2	35.5	36.2	36.3	36.5
≥ 2500	11.2	16.0	18.5	26.7	29.8	30.5	35.7	38.4	38.9	40.2	40.3	40.8	41.2	41.8	41.9	42.2
≥ 2000	12.4	18.3	21.0	30.4	34.7	35.5	41.0	43.9	44.8	46.5	46.6	47.2	47.6	48.2	48.3	48.6
≥ 1800	12.8	18.9	21.6	31.1	35.4	36.3	41.7	44.8	45.8	47.6	47.7	48.3	48.7	49.3	49.4	49.7
≥ 1500	14.6	21.9	24.7	35.5	41.2	42.1	49.0	52.5	53.6	56.2	56.3	56.9	57.4	58.1	58.2	58.4
≥ 1200	15.3	23.7	26.8	39.2	45.9	46.7	54.4	58.4	59.5	62.5	62.7	63.6	64.1	64.7	64.8	65.1
≥ 1000	15.6	24.8	28.5	42.1	49.4	50.3	58.5	62.9	64.1	68.0	68.0	69.1	69.6	70.2	70.4	70.6
≥ 900	15.6	25.0	28.7	42.8	50.8	51.8	60.1	64.7	66.2	70.6	71.0	72.0	72.4	73.1	73.2	73.4
≥ 800	15.7	25.2	29.2	44.9	53.8	54.9	64.1	68.8	70.2	75.0	75.6	76.9	77.4	78.0	78.1	78.4
≥ 700	15.7	25.5	29.4	45.6	54.7	55.8	66.4	71.8	73.3	79.1	79.7	81.1	81.7	82.3	82.4	82.7
≥ 600	15.7	25.5	29.4	46.1	55.7	57.2	68.6	74.4	76.3	82.3	83.0	84.4	85.1	85.7	85.9	86.1
≥ 500	15.7	25.5	29.6	46.4	56.3	57.9	69.4	75.4	77.2	83.6	84.7	86.2	87.8	88.6	88.7	88.9
≥ 400	15.7	25.5	29.6	46.4	56.7	58.4	70.5	77.7	79.6	86.8	88.1	89.9	91.6	92.7	92.9	93.1
≥ 300	15.7	25.5	29.6	46.4	56.7	58.4	70.5	78.0	80.1	87.9	89.4	91.3	93.1	95.1	95.8	96.3
≥ 200	15.7	25.5	29.6	46.4	56.7	58.4	70.5	78.1	80.2	88.4	90.5	92.6	95.0	97.4	98.6	99.8
≥ 100	15.7	25.5	29.6	46.4	56.7	58.4	70.5	78.1	80.2	88.4	90.5	92.6	95.0	97.7	98.9	100.0
≥ 0	15.7	25.5	29.6	46.4	56.7	58.4	70.5	78.1	80.2	88.4	90.5	92.6	95.0	97.7	98.9	100.0

TOTAL NUMBER OF OBSERVATIONS 413

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 627 STATION NAME GRAFENWOHR AAF DL

73-81

JAN

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1222-1422

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005	≥0.0025	≥0.001
20000	5.5	5.7	5.9	14.3	16.6	17.6	18.7	19.7	19.8	20.1	20.1	20.1	20.1	20.1	20.1	20.1
18000	6.5	10.2	10.6	17.5	20.6	21.7	22.2	24.1	24.3	24.5	24.5	24.5	24.5	24.5	24.5	24.5
16000	7.4	11.5	11.8	18.7	21.8	22.9	24.4	25.4	25.5	25.7	25.7	25.7	25.7	25.7	25.7	25.7
14000	7.4	11.5	11.8	18.7	21.8	22.9	24.4	25.4	25.5	25.7	25.7	25.7	25.7	25.7	25.7	25.7
12000	7.5	11.6	11.9	18.8	21.9	23.0	24.5	25.5	25.6	25.9	25.9	25.9	25.9	25.9	25.9	25.9
10000	7.5	11.6	11.9	18.8	21.9	23.0	24.6	25.7	25.9	26.1	26.1	26.1	26.1	26.1	26.1	26.1
8000	7.5	11.8	12.2	19.1	22.2	23.3	24.9	26.0	26.1	26.4	26.4	26.4	26.4	26.4	26.4	26.4
6000	7.6	12.2	12.7	20.1	23.4	24.5	26.4	27.5	27.6	27.8	27.8	27.8	27.8	27.8	27.8	27.8
5000	8.7	12.8	13.3	21.6	25.2	26.4	28.2	29.3	29.4	29.7	29.7	29.7	29.7	29.7	29.7	29.7
4500	9.3	13.1	13.5	22.3	26.0	27.1	28.9	30.0	30.3	30.7	30.7	30.7	30.7	30.7	30.7	30.7
4000	9.9	13.8	14.3	24.1	27.8	29.9	31.0	32.1	32.5	32.9	32.9	32.9	32.9	32.9	32.9	32.9
3500	9.7	14.7	15.1	25.2	28.9	30.0	32.3	33.9	34.2	34.6	34.6	34.6	34.6	34.6	34.6	34.6
3000	11.7	16.1	16.7	27.2	30.9	32.1	34.4	36.2	36.6	37.1	37.2	37.2	37.2	37.2	37.2	37.2
2500	11.3	16.6	17.2	27.8	31.5	32.8	35.0	36.8	37.3	37.8	37.9	37.9	37.9	37.9	37.9	37.9
2000	14.2	19.7	20.4	31.5	35.7	37.1	39.3	41.4	41.9	42.4	42.5	42.5	42.5	42.5	42.5	42.5
1800	16.1	21.9	22.9	34.7	39.5	40.9	43.3	45.4	46.2	46.7	46.8	46.8	46.8	46.8	46.8	46.8
1600	17.6	24.0	25.5	38.3	43.3	44.7	47.4	49.5	50.2	50.9	51.0	51.1	51.1	51.1	51.1	51.1
1400	18.5	25.2	26.7	39.9	45.4	46.8	49.6	51.7	52.5	53.1	53.2	53.3	53.3	53.3	53.3	53.3
1200	20.2	28.1	29.8	45.0	52.1	53.8	57.1	59.5	60.3	61.3	61.5	61.6	61.8	61.9	61.9	61.9
1000	20.6	29.2	31.7	48.6	57.5	59.5	63.8	66.5	67.4	69.2	69.3	69.5	69.7	69.8	69.8	69.8
900	20.9	29.9	33.1	50.6	59.9	61.8	66.7	70.4	71.4	74.1	74.8	74.9	75.5	75.6	75.6	75.6
800	21.1	30.3	33.5	51.6	61.0	63.1	68.1	71.8	72.8	75.6	76.2	76.4	77.0	77.2	77.2	77.2
700	21.2	30.9	34.5	54.1	63.9	66.1	72.5	76.7	77.8	80.8	81.7	81.9	82.6	83.0	83.0	83.0
600	21.2	30.9	34.5	54.2	64.8	67.2	74.8	79.7	81.0	84.7	85.6	86.0	86.7	87.1	87.1	87.1
500	21.2	30.9	34.5	54.4	65.8	68.3	76.8	84.6	86.6	92.6	93.8	94.2	95.8	96.4	96.4	96.4
400	21.2	30.9	34.5	54.4	65.8	68.3	76.8	84.7	86.7	93.2	94.6	95.1	97.2	98.2	98.2	98.2
300	21.2	30.9	34.5	54.4	65.8	68.3	76.8	84.9	86.8	93.5	94.8	95.4	97.7	99.3	99.5	99.9
200	21.2	30.9	34.5	54.4	65.8	68.3	76.8	84.9	86.8	93.5	94.8	95.4	97.7	99.3	99.6	100.0
100	21.2	30.9	34.5	54.4	65.8	68.3	76.8	84.9	86.8	93.5	94.8	95.4	97.7	99.3	99.6	100.0

TOTAL NUMBER OF OBSERVATIONS 812

GLOBAL CLIMATOLOGY BRANCH
GRAFETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 870 GRAFENWOHR AAF DL

73-81

1A1

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1500-1700

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1.4	≥1	≥.8	≥.6	≥.5	≥.4	≥.3	≥.2
NO CEILING	5.2	10.7	11.9	17.5	18.3	19.7	21.1	22.1	22.1	22.2	22.2	22.2	22.2	22.2	22.3	22.3
≥ 20000	6.7	12.1	13.4	20.7	22.2	23.7	25.2	26.3	26.3	26.4	26.4	26.4	26.4	26.5	26.5	26.5
≥ 18000	7.4	13.0	14.3	21.6	23.0	24.5	26.0	27.1	27.1	27.3	27.3	27.3	27.3	27.4	27.4	27.4
≥ 16000	7.4	13.0	14.3	21.6	23.0	24.5	26.0	27.1	27.1	27.3	27.3	27.3	27.3	27.4	27.4	27.4
≥ 14000	7.7	13.3	14.5	21.8	23.3	24.8	26.3	27.5	27.5	27.6	27.6	27.6	27.6	27.8	27.8	27.8
≥ 12000	7.7	13.3	14.5	21.8	23.3	24.8	26.3	27.5	27.5	27.6	27.6	27.6	27.6	27.8	27.8	27.8
≥ 10000	7.8	13.8	15.0	22.3	23.8	25.3	26.8	28.1	28.1	28.3	28.3	28.3	28.3	28.4	28.4	28.4
≥ 9000	7.8	13.8	15.1	22.4	23.9	25.4	26.9	28.3	28.3	28.4	28.4	28.4	28.4	28.5	28.5	28.5
≥ 8000	8.1	14.4	16.0	24.2	25.9	27.4	28.9	30.2	30.2	30.4	30.4	30.4	30.4	30.5	30.5	30.5
≥ 7000	8.9	15.1	16.7	25.7	27.5	29.0	30.5	31.8	31.8	32.0	32.0	32.0	32.0	32.1	32.1	32.1
≥ 6000	9.7	15.5	17.1	26.3	28.1	29.6	31.2	32.8	32.8	33.0	33.0	33.0	33.0	33.1	33.1	33.1
≥ 5000	10.0	17.0	18.6	28.6	30.5	32.3	34.0	35.6	35.6	35.7	35.7	35.7	35.7	35.8	35.8	35.8
≥ 4500	10.7	17.7	19.3	29.7	31.6	33.6	35.3	37.2	37.2	37.3	37.3	37.3	37.3	37.4	37.4	37.4
≥ 4000	11.6	18.8	20.4	31.2	33.1	35.1	36.8	38.7	38.7	38.8	38.8	38.8	38.8	38.9	38.9	38.9
≥ 3500	12.6	20.1	21.9	33.0	35.3	37.3	39.5	41.8	41.8	41.9	41.9	41.9	41.9	42.0	42.0	42.0
≥ 3000	14.9	22.4	24.7	36.8	39.3	41.3	44.0	46.5	46.5	46.8	46.8	46.8	46.8	47.0	47.0	47.0
≥ 2500	16.1	24.5	27.0	39.7	42.5	44.5	47.2	49.7	49.7	50.2	50.2	50.2	50.2	50.3	50.3	50.3
≥ 2000	17.1	26.3	29.7	42.3	45.2	47.2	50.4	53.0	53.0	53.5	53.5	53.5	53.5	53.8	53.8	53.8
≥ 1800	17.6	26.8	29.5	43.2	46.5	48.5	51.8	54.5	54.5	55.0	55.0	55.1	55.1	55.3	55.3	55.3
≥ 1600	19.0	28.9	32.6	48.2	51.8	53.8	57.2	60.7	60.8	61.3	61.5	61.7	62.0	62.1	62.1	62.1
≥ 1400	19.7	31.2	35.3	52.3	57.9	60.1	65.1	69.1	69.4	70.1	70.3	70.6	70.9	71.1	71.1	71.1
≥ 1200	20.0	32.1	37.2	55.5	62.5	64.9	70.8	76.1	76.6	78.2	78.4	78.9	79.3	79.6	79.6	79.6
≥ 900	20.1	32.3	37.9	56.9	64.2	66.7	72.9	78.9	79.7	81.4	81.7	82.3	82.7	82.9	82.9	82.9
≥ 800	20.1	33.0	38.9	58.5	66.0	68.6	75.7	81.8	82.5	84.3	84.6	85.4	85.7	86.2	86.2	86.2
≥ 700	20.3	33.1	39.2	59.0	66.5	69.3	77.6	83.9	84.9	86.9	87.4	88.1	88.5	89.0	89.0	89.0
≥ 600	20.3	33.1	39.2	59.0	66.5	69.4	78.4	85.5	86.5	90.1	90.7	91.4	92.1	92.6	92.6	92.6
≥ 500	20.3	33.1	39.2	59.0	66.7	69.9	79.1	86.4	87.5	91.7	92.4	93.2	94.5	95.0	95.0	95.0
≥ 400	20.3	33.1	39.2	59.4	67.4	70.6	79.8	87.6	89.0	93.7	94.4	95.2	96.7	97.4	97.4	97.4
≥ 300	20.3	33.1	39.2	59.4	67.4	70.6	79.8	87.7	89.2	94.4	95.2	95.9	97.4	98.4	98.4	98.5
≥ 200	20.3	33.1	39.2	59.4	67.4	70.6	79.8	87.7	89.2	94.4	95.2	96.0	97.5	98.9	99.4	99.6
≥ 100	20.3	33.1	39.2	59.4	67.4	70.6	79.8	87.7	89.2	94.4	95.2	96.0	97.5	98.9	99.5	100.0
≥ 0	20.3	33.1	39.2	59.4	67.4	70.6	79.8	87.7	89.2	94.4	95.2	96.0	97.5	98.9	99.5	100.0

TOTAL NUMBER OF OBSERVATIONS 870

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

19870 GRAFENWOHR AAF DL
STATION NAME

73-81

JAN

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1980-2000

CEILING FEET	VISIBILITY STATUTE MILES																
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.75	≥0.5	≥0.25	≥0.15	≥0.1	≥0.075	≥0.05	≥0.025
≥20000	7.2	8.6	9.9	14.6	16.6	16.7	18.2	19.7	20.0	20.7	20.8	20.8	21.1	21.5	21.7	22.1	
≥18000	6.1	9.7	11.4	17.5	19.9	21.1	21.8	23.3	23.6	24.6	24.7	24.7	24.9	25.3	25.6	25.9	
≥16000	6.5	10.3	12.0	18.1	20.5	21.0	22.7	24.2	24.4	25.4	25.6	25.6	25.8	26.2	26.4	26.8	
≥14000	5.5	10.3	12.2	18.1	20.5	21.0	22.7	24.2	24.4	25.4	25.6	25.6	25.8	26.2	26.4	26.8	
≥12000	6.9	10.8	12.5	18.6	21.0	21.5	23.2	24.7	24.9	25.9	26.1	26.1	26.3	26.7	26.9	27.3	
≥10000	6.9	11.3	12.9	18.9	21.2	21.7	23.4	25.1	25.3	26.3	26.4	26.4	26.7	27.0	27.3	27.7	
≥9000	7.1	11.2	12.9	19.0	21.5	22.0	23.7	25.4	25.7	26.7	26.8	26.8	27.0	27.4	27.7	28.0	
≥8000	7.2	11.3	13.0	19.1	21.6	22.1	23.8	25.6	25.8	26.8	26.9	26.9	27.2	27.5	27.8	28.2	
≥7000	7.4	11.7	13.4	20.0	22.5	23.0	24.7	26.4	26.7	27.7	27.8	27.8	28.0	28.4	28.7	29.0	
≥6000	9.3	12.9	14.8	21.5	24.3	24.8	26.6	28.3	28.5	29.5	29.7	29.7	29.9	30.3	30.5	30.9	
≥5000	8.6	13.3	15.1	21.8	24.7	25.2	27.3	29.0	29.3	30.3	30.4	30.4	30.6	31.0	31.3	31.6	
≥4500	9.3	14.0	15.9	22.8	26.1	26.8	29.0	30.9	31.1	32.1	32.3	32.3	32.5	32.9	33.1	33.5	
≥4000	10.7	16.3	18.2	25.6	28.9	29.7	32.1	34.2	34.5	35.5	35.6	35.6	36.0	36.4	36.6	37.0	
≥3500	11.1	16.6	18.7	26.6	30.3	31.0	33.7	36.1	36.5	37.5	37.6	37.6	38.0	38.3	38.6	39.0	
≥3000	11.8	17.7	20.0	28.4	32.4	33.1	37.0	39.7	40.2	41.2	41.3	41.3	41.7	42.1	42.3	42.7	
≥2500	12.8	19.5	21.8	30.6	35.1	35.9	39.8	42.6	43.1	44.0	44.2	44.2	44.5	44.9	45.2	45.5	
≥2000	13.9	21.2	24.1	34.9	40.1	40.9	46.7	50.0	50.5	51.5	51.6	51.6	52.0	52.4	52.6	53.0	
≥1800	14.3	21.8	24.9	36.4	41.7	42.6	48.6	52.0	52.5	53.5	53.6	53.6	54.0	54.3	54.6	55.0	
≥1500	15.5	23.9	27.4	40.9	46.8	47.6	55.0	59.2	59.7	61.4	61.5	61.5	61.9	62.4	62.7	63.0	
≥1200	16.5	25.7	29.2	44.0	51.2	52.2	60.4	65.1	65.9	68.0	68.1	68.1	68.5	69.0	69.4	69.7	
≥1000	17.0	26.6	31.0	47.5	55.8	57.3	66.0	71.7	72.5	75.3	75.4	75.4	75.8	76.7	77.0	77.4	
≥900	17.1	27.0	31.6	48.6	57.1	58.6	67.7	74.3	75.2	78.0	78.2	78.2	78.5	79.4	79.8	80.1	
≥800	17.1	27.2	31.9	49.3	57.9	59.4	69.1	76.1	77.2	80.4	80.8	80.8	81.1	82.0	82.4	82.8	
≥700	17.2	27.3	32.3	50.5	59.4	60.9	71.6	79.8	81.1	84.5	85.2	85.2	85.6	86.5	87.1	87.5	
≥600	17.2	27.3	32.8	51.5	60.5	62.3	73.2	81.9	83.3	87.6	88.3	88.3	89.0	90.0	90.6	90.9	
≥500	17.2	27.3	32.8	51.6	60.8	62.5	74.3	83.5	84.9	90.0	90.9	91.3	91.9	93.1	93.7	94.0	
≥400	17.2	27.3	32.8	51.7	60.9	62.7	74.4	83.7	85.1	90.7	91.7	92.2	92.8	94.2	94.8	95.2	
≥300	17.2	27.3	32.8	51.7	60.9	62.7	74.6	84.2	85.9	91.8	93.1	93.7	94.9	96.3	97.0	97.9	
≥200	17.2	27.3	32.8	51.7	60.9	62.7	74.6	84.2	86.1	92.2	94.0	94.7	95.9	97.3	98.3	99.3	
≥100	17.2	27.3	32.8	51.7	60.9	62.7	74.6	84.2	86.1	92.2	94.2	94.8	96.1	97.5	98.5	99.5	
≥	17.2	27.3	32.8	51.7	60.9	62.7	74.6	84.2	86.1	92.2	94.2	94.8	96.0	97.5	98.5	100.0	

TOTAL NUMBER OF OBSERVATIONS 876

CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1987 GRAFENWHR AAF DL

73-81

JAN

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

2132-2303

CEILING FEET	VISIBILITY STATUTE MILES															
	20	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
NO CEILING 20000	5.1	7.8	9.8	13.8	15.8	15.8	17.0	17.6	17.7	18.9	19.0	19.0	19.4	20.1	20.3	21.0
2 18000	5.6	8.7	10.8	15.4	17.6	17.6	19.2	20.1	20.2	21.3	21.5	21.5	21.8	22.6	22.8	23.4
2 16000	6.2	9.3	11.4	16.5	18.7	18.7	20.3	21.2	21.3	22.5	22.6	22.6	23.0	23.7	23.9	24.6
2 14000	6.3	9.4	11.5	16.6	18.9	18.9	20.5	21.3	21.5	22.6	22.7	22.7	23.1	23.8	24.1	24.7
2 12000	6.5	9.6	11.7	16.7	19.0	19.0	20.6	21.5	21.6	22.7	22.8	22.8	23.2	23.9	24.2	24.8
2 10000	6.5	9.7	11.8	16.9	19.4	19.4	21.1	22.2	22.3	23.7	23.8	23.8	24.2	24.9	25.2	25.9
2 9000	7.2	10.4	12.5	17.6	20.1	20.1	21.8	23.0	23.1	24.4	24.6	24.6	24.9	25.7	25.9	26.6
2 8000	7.6	10.8	13.1	19.0	21.5	21.5	23.2	24.3	24.4	25.8	25.9	25.9	26.3	27.0	27.3	27.9
2 7000	7.6	11.4	13.6	20.0	22.6	22.6	24.8	25.9	26.1	27.4	27.5	27.5	27.9	28.7	28.9	29.5
2 6000	7.6	11.4	13.6	20.0	22.6	22.6	25.2	26.3	26.4	27.8	27.9	27.9	28.3	29.0	29.3	29.9
2 5000	8.4	12.3	14.5	21.5	24.2	24.2	27.3	28.4	28.5	29.9	30.0	30.0	30.4	31.1	31.4	32.0
2 4500	8.6	12.3	15.1	22.1	25.2	25.2	28.4	29.7	29.9	31.3	31.4	31.4	32.1	33.1	33.4	34.0
2 4000	10.2	15.1	17.5	25.3	28.5	28.5	31.9	33.4	33.6	35.0	35.1	35.1	35.9	36.8	37.1	37.7
2 3500	10.5	15.6	18.0	26.2	29.5	29.5	32.9	34.6	34.9	36.2	36.4	36.4	37.1	38.1	38.3	39.0
2 3000	11.8	17.0	19.6	28.3	31.8	31.8	35.7	37.6	37.8	39.2	39.3	39.3	40.1	41.1	41.3	41.9
2 2500	13.6	19.1	21.8	31.9	35.9	36.0	40.2	42.1	42.3	43.8	43.9	43.9	44.7	45.8	46.0	46.7
2 2000	14.9	21.7	23.8	35.5	40.6	41.2	46.3	48.3	48.6	50.2	50.4	50.4	51.1	52.2	52.5	53.1
2 1800	15.1	21.2	24.1	36.4	41.4	42.1	47.8	49.8	50.1	51.9	52.0	52.0	52.7	53.8	54.1	54.7
2 1600	15.9	22.7	26.1	40.7	46.2	46.9	54.3	56.9	57.4	59.9	60.3	60.3	61.0	62.2	62.4	63.0
2 1400	16.7	24.3	27.9	44.2	50.7	51.5	60.2	63.2	63.9	67.1	67.5	67.5	68.2	69.4	69.6	70.2
2 1200	17.2	24.9	28.9	46.2	53.7	54.8	64.1	67.7	68.6	72.3	72.7	72.7	73.4	74.6	74.8	75.4
2 1000	17.2	24.9	29.7	46.4	54.0	55.1	65.4	69.2	70.1	73.8	74.3	74.3	75.1	76.2	76.4	77.0
2 900	17.5	25.2	29.3	47.5	55.3	56.5	67.6	71.8	72.8	76.8	77.3	77.4	78.2	79.4	79.7	80.3
2 800	17.6	25.4	29.5	48.6	56.6	57.7	69.6	74.6	75.7	80.1	80.6	81.8	81.5	82.8	83.0	83.6
2 700	17.6	25.4	29.5	49.0	57.4	58.9	71.7	76.8	77.9	83.1	84.0	84.4	85.1	86.4	86.6	87.2
2 600	17.6	25.4	29.5	49.5	58.3	59.8	72.7	78.8	79.9	85.9	87.0	87.6	88.3	89.6	89.8	90.4
2 500	17.6	25.4	29.5	49.9	58.7	60.2	73.2	79.4	80.5	87.3	88.5	89.5	90.2	91.4	91.8	92.4
2 400	17.6	25.4	29.5	50.0	58.9	60.4	73.6	80.0	81.1	88.7	90.1	91.1	91.9	93.4	93.9	95.2
2 300	17.6	25.4	29.5	50.0	58.9	60.4	73.6	80.0	81.3	89.1	90.8	92.2	93.3	94.9	95.5	96.8
2 200	17.6	25.4	29.7	50.1	59.1	60.5	73.8	80.3	81.5	89.5	91.3	93.2	94.3	96.3	97.1	99.3
2 100	17.6	25.4	29.7	50.1	59.1	60.5	73.8	80.3	81.5	89.5	91.3	93.2	94.4	96.5	97.4	100.0

TOTAL NUMBER OF OBSERVATIONS 876

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION GRAFENWOHR AAF DL

73-81

JAN

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

ALL

CEILING FEET	VISIBILITY STATUTE MILES																
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥2	≥2	≥2	≥2	≥2	≥2	≥2	≥2	≥2	≥2
NO CEILING	4.5	7.2	8.2	12.9	14.9	15.3	16.7	17.6	17.7	18.3	18.4	18.5	18.7	18.9	19.0	19.4	
≥ 20000	5.5	8.3	9.5	15.0	17.4	17.8	19.6	20.5	20.6	21.2	21.7	21.5	21.6	22.0	22.0	22.4	
≥ 18000	5.8	8.8	10.0	15.7	18.0	18.5	20.3	21.2	21.3	22.0	22.1	22.2	22.3	22.7	22.8	23.1	
≥ 16000	5.8	8.8	10.0	15.7	18.0	18.5	20.3	21.2	21.3	22.0	22.1	22.2	22.3	22.7	22.8	23.1	
≥ 14000	6.1	8.9	10.1	15.8	18.1	18.6	20.4	21.3	21.4	22.1	22.2	22.3	22.5	22.8	22.9	23.2	
≥ 12000	6.1	9.1	10.3	16.0	18.3	18.8	20.6	21.6	21.7	22.3	22.4	22.5	22.7	23.0	23.1	23.4	
≥ 10000	6.2	9.2	10.5	16.2	18.6	19.1	21.0	22.1	22.2	22.9	23.0	23.1	23.3	23.6	23.7	24.0	
≥ 9000	6.3	9.5	10.7	16.5	18.9	19.4	21.3	22.3	22.5	23.1	23.2	23.4	23.6	23.9	24.0	24.3	
≥ 8000	6.7	10.0	11.4	17.6	20.1	20.7	22.7	23.8	23.9	24.6	24.7	24.8	25.0	25.4	25.5	25.8	
≥ 7000	7.1	10.6	12.0	18.5	21.3	21.8	24.0	25.1	25.2	25.9	26.0	26.1	26.3	26.6	26.7	27.1	
≥ 6000	7.2	10.9	12.2	18.8	21.7	22.2	24.5	25.7	25.8	26.5	26.6	26.7	26.9	27.3	27.4	27.7	
≥ 5000	7.9	11.8	13.1	20.3	23.3	23.9	26.5	27.7	27.9	28.6	28.7	28.8	29.0	29.4	29.4	29.8	
≥ 4500	8.4	12.4	13.8	21.5	24.5	25.1	27.9	29.3	29.5	30.3	30.4	30.6	30.9	31.2	31.3	31.7	
≥ 4000	9.4	13.8	15.3	23.2	26.3	26.9	29.9	31.5	31.8	32.6	32.7	32.9	33.2	33.6	33.7	34.0	
≥ 3500	9.9	14.4	15.9	24.1	27.3	28.0	31.1	32.9	33.2	34.1	34.2	34.4	34.7	35.1	35.2	35.5	
≥ 3000	11.3	16.1	18.1	26.9	30.4	31.1	34.6	36.6	37.0	37.9	38.0	38.2	38.6	38.9	39.0	39.4	
≥ 2500	12.8	18.3	20.4	30.1	33.9	34.6	38.5	40.7	41.1	42.1	42.3	42.5	42.8	43.2	43.3	43.6	
≥ 2000	14.2	20.4	22.9	34.0	38.7	39.5	44.1	46.5	47.1	48.3	48.5	48.7	49.0	49.4	49.5	49.9	
≥ 1800	14.8	21.2	23.8	35.2	40.2	41.0	45.9	48.4	49.0	50.3	50.4	50.7	51.0	51.4	51.5	51.9	
≥ 1500	16.4	23.6	26.5	39.4	45.1	46.0	52.2	55.5	56.1	57.8	58.0	58.3	58.8	59.2	59.3	59.6	
≥ 1200	17.3	25.2	28.4	43.4	50.2	51.3	56.7	62.4	63.2	65.5	65.8	66.1	66.6	67.1	67.2	67.5	
≥ 1000	17.8	26.2	30.1	46.1	53.8	55.0	63.1	67.6	68.4	71.5	71.9	72.2	72.9	73.4	73.5	73.8	
≥ 900	17.9	26.4	30.5	47.0	55.0	56.2	64.7	69.4	70.4	73.6	74.0	74.5	75.1	75.6	75.8	76.1	
≥ 800	18.1	26.7	31.0	48.6	57.1	58.4	67.9	72.9	73.9	77.3	77.8	78.3	79.0	79.6	79.7	80.0	
≥ 700	18.1	26.9	31.2	49.4	58.1	59.6	69.9	75.6	76.8	80.5	81.1	81.8	82.5	83.0	83.2	83.5	
≥ 600	18.1	27.0	31.4	50.0	58.9	60.5	71.5	77.7	79.0	83.6	84.3	85.0	85.8	86.4	86.6	86.9	
≥ 500	18.1	27.0	31.5	50.3	59.5	61.2	72.6	79.3	81.0	86.3	87.2	88.0	89.1	89.8	90.0	90.3	
≥ 400	18.1	27.0	31.5	50.5	59.9	61.7	73.3	80.6	82.5	88.5	89.5	90.5	91.8	92.7	92.9	93.3	
≥ 300	18.1	27.0	31.5	50.5	60.0	61.8	73.5	81.2	83.1	89.9	91.0	92.1	93.6	94.9	95.4	96.0	
≥ 200	18.1	27.0	31.5	50.5	60.0	61.8	73.6	81.2	83.2	90.3	91.7	93.0	94.8	96.4	97.2	98.1	
≥ 100	18.1	27.0	31.5	50.5	60.0	61.8	73.6	81.3	83.3	90.4	92.0	93.3	95.1	97.0	98.1	99.7	
≥ 0	18.1	27.0	31.5	50.5	60.0	61.8	73.6	81.3	83.3	90.4	92.0	93.3	95.1	97.1	98.2	100.0	

TOTAL NUMBER OF OBSERVATIONS 6445

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
ETAC
AT WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 73-81 CRAFTENWHR AAF OL

73-81

FEB

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

0000-0200

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥1	≥1/2	≥1/4	≥1/8	≥1/16	≥1/32	≥1/64	≥1/128	≥1/256	≥1/512
NO. CEILING	9.3	13.7	16.2	22.2	23.2	23.4	25.2	26.3	26.6	28.8	28.8	29.7	29.7	29.7	29.9	30.1
2 20000	10.4	15.3	17.8	24.2	25.2	25.4	27.6	26.8	29.1	31.3	31.3	32.2	32.2	32.2	32.4	32.6
2 18000	17.4	15.5	18.1	24.3	25.8	25.9	28.1	29.3	29.6	31.8	31.8	32.8	32.8	32.8	32.9	33.2
2 16000	10.4	15.5	18.1	24.3	25.8	25.9	28.1	29.3	29.6	31.8	31.8	32.8	32.8	32.8	32.9	33.2
2 14000	10.4	15.5	18.1	24.4	25.9	26.0	28.3	29.5	29.7	32.7	32.7	32.9	32.9	32.9	33.0	33.3
2 12000	10.4	15.5	18.1	24.8	26.3	26.4	28.7	29.9	30.1	32.4	32.4	33.3	33.3	33.3	33.4	33.7
2 10000	10.7	15.7	18.5	25.8	27.2	27.7	30.0	31.2	31.4	33.7	33.7	34.6	34.6	34.6	34.7	35.0
2 8000	10.7	15.7	18.5	25.8	27.2	27.7	30.0	31.2	31.4	33.7	33.7	34.6	34.6	34.6	34.7	35.0
2 6000	11.9	17.2	19.9	27.6	29.1	29.6	32.0	33.2	33.4	35.7	35.7	36.6	36.6	36.6	36.7	37.0
2 4000	12.3	17.7	20.5	28.8	30.3	30.8	33.2	34.3	34.6	36.9	36.9	37.8	37.8	37.8	37.9	38.2
2 2000	12.3	17.7	20.5	28.8	30.8	31.3	33.7	34.9	35.1	37.4	37.4	38.3	38.3	38.3	38.4	38.7
2 1000	13.5	19.2	22.1	31.4	32.5	33.2	35.5	37.0	37.3	39.8	39.8	40.7	40.7	40.7	40.8	41.1
1 4000	15.2	20.9	23.8	32.9	35.0	35.7	38.0	40.0	40.4	43.2	43.2	44.1	44.1	44.1	44.3	44.5
1 2000	15.7	21.5	24.6	33.9	36.3	37.0	39.4	41.3	41.7	44.5	44.5	45.4	45.4	45.4	45.6	46.0
1 1000	16.6	22.7	26.0	36.9	39.4	40.0	42.4	44.4	44.8	47.6	47.6	48.5	48.5	48.5	48.6	49.0
1 800	17.7	24.6	28.1	40.8	43.5	44.1	46.8	49.3	49.7	52.7	52.7	53.6	53.6	53.6	53.8	54.2
1 600	18.5	25.6	29.5	43.1	46.0	46.6	50.2	53.2	53.6	56.9	56.9	57.9	57.9	57.9	58.0	58.4
1 400	19.7	28.0	32.2	47.7	51.1	51.8	55.9	58.9	59.3	63.1	63.1	64.1	64.1	64.1	64.2	64.6
1 200	20.2	29.2	33.4	49.0	52.4	53.1	57.7	60.8	61.2	65.0	65.0	65.9	65.9	65.9	66.1	66.4
1 100	21.1	30.3	34.5	51.8	55.6	56.3	61.6	65.4	65.8	69.6	69.6	71.5	71.5	71.5	71.7	71.1
1 80	21.3	31.6	35.7	54.0	58.9	59.7	66.7	70.8	71.2	75.2	75.2	77.1	77.1	77.1	77.2	76.6
1 60	21.7	31.7	35.8	56.3	62.0	62.7	71.1	75.7	76.1	80.4	80.4	81.8	81.8	81.8	81.9	82.3
1 40	21.7	31.0	35.8	57.9	63.5	64.3	72.9	77.7	78.1	82.6	82.7	83.9	83.9	83.9	84.0	84.7
1 20	21.7	31.0	35.8	57.9	64.2	65.0	74.1	78.9	79.3	83.9	84.0	85.2	85.2	85.2	85.3	86.4
1 10	21.7	31.0	35.8	58.4	65.1	66.1	76.0	81.0	81.6	86.3	86.4	87.6	87.6	87.6	87.7	88.8
1 8	21.7	31.2	35.9	58.8	65.5	66.4	76.5	81.6	82.3	87.1	87.2	88.4	88.4	88.4	88.8	89.6
1 6	21.7	31.2	35.9	59.7	65.8	66.7	76.8	82.0	83.1	88.2	88.4	89.6	89.6	89.6	90.2	91.4
1 4	21.7	31.2	35.9	59.0	65.8	66.8	77.5	83.1	84.1	89.3	89.4	90.6	90.6	90.6	91.5	92.7
1 2	21.7	31.2	35.9	59.0	65.8	66.8	77.5	83.2	84.3	89.7	89.8	91.1	91.1	91.1	92.9	94.1
1 1	21.7	31.2	35.9	59.0	65.8	66.8	77.9	83.6	85.1	91.0	91.5	92.9	93.8	95.2	96.3	99.5
1 0	21.7	31.2	35.9	59.1	65.8	66.8	77.9	83.6	85.1	91.0	91.5	92.9	93.8	95.2	96.4	100.0

TOTAL NUMBER OF OBSERVATIONS 757

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

17470 GRAFENWOHR AAF DL

73-81

FEB

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1300-0500

CEILING FEET	VISIBILITY - STATUTE MILES															
	≥ 10	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
NO. CEILING	9.9	13.3	15.7	20.3	21.5	21.7	23.8	25.0	25.4	27.9	28.7	28.7	28.8	28.9	29.1	29.2
≥ 20000	17.6	14.4	16.3	22.2	23.4	23.5	25.9	27.3	27.7	30.3	30.4	31.2	31.2	31.3	31.4	31.6
≥ 18000	17.6	14.5	17.0	22.3	23.9	24.0	26.4	27.9	28.3	30.8	30.9	31.6	31.7	31.8	32.0	32.1
≥ 16000	10.6	14.5	17.0	22.3	23.9	24.0	26.4	27.9	28.3	30.8	30.9	31.6	31.7	31.8	32.0	32.1
≥ 14000	17.7	14.7	17.2	22.5	24.0	24.2	26.6	28.0	28.4	30.9	31.0	31.7	31.8	32.0	32.1	32.2
≥ 12000	11.0	14.9	17.4	22.9	24.4	24.6	26.9	28.4	28.8	31.3	31.4	32.1	32.2	32.4	32.5	32.6
≥ 10000	11.4	15.7	18.4	23.8	25.4	25.5	28.0	29.5	29.9	32.4	32.5	33.2	33.3	33.4	33.6	33.7
≥ 9000	11.4	15.9	19.5	24.2	25.8	25.9	28.4	29.9	30.3	32.8	32.9	33.6	33.7	33.8	33.9	34.1
≥ 8000	12.3	16.8	19.4	25.9	27.5	27.7	30.4	31.8	32.2	34.7	34.9	35.5	35.7	35.8	35.9	36.1
≥ 7000	12.7	17.6	20.2	27.1	28.7	28.9	31.6	33.2	33.6	36.3	36.5	37.1	37.3	37.4	37.5	37.6
≥ 6000	12.7	19.0	20.6	27.5	29.2	29.5	32.2	33.8	34.2	37.0	37.1	37.8	37.9	38.0	38.2	38.3
≥ 5000	14.1	19.3	21.9	28.9	30.6	31.2	34.1	35.8	36.2	39.0	39.1	39.8	39.9	40.0	40.2	40.3
≥ 4500	14.7	19.9	22.6	30.8	32.5	33.0	35.9	37.8	38.4	41.2	41.3	42.0	42.1	42.3	42.4	42.5
≥ 4000	15.7	21.1	23.8	32.2	34.6	35.1	38.0	39.9	40.6	43.6	43.7	44.4	44.5	44.6	44.8	44.9
≥ 3500	16.5	21.9	24.8	34.3	36.9	37.4	40.6	42.5	43.2	46.2	46.4	47.0	47.2	47.3	47.4	47.6
≥ 3000	17.4	23.1	26.3	37.0	39.9	40.4	43.6	45.6	46.2	49.4	49.5	50.2	50.3	50.5	50.6	50.7
≥ 2500	18.2	23.9	27.2	39.4	42.7	43.2	47.0	49.3	49.9	53.5	53.6	54.3	54.4	54.6	54.7	54.8
≥ 2000	18.8	25.4	29.1	41.9	45.3	45.8	50.1	52.4	53.1	56.8	56.9	57.6	57.7	58.0	58.1	58.3
≥ 1800	19.2	25.9	29.7	42.7	46.2	46.8	51.0	53.4	54.2	57.9	58.0	58.7	58.8	59.0	59.2	59.3
≥ 1600	21.1	29.1	33.2	48.1	52.0	52.7	57.9	61.0	61.8	65.5	65.7	66.3	66.4	66.7	66.8	67.0
≥ 1400	21.4	29.5	33.7	51.1	55.6	56.3	62.9	66.3	67.4	71.5	71.6	72.3	72.4	72.8	72.9	73.1
≥ 1200	21.4	29.9	34.5	53.2	58.7	59.3	67.1	70.8	72.0	76.9	77.1	77.9	78.1	78.5	78.6	78.7
≥ 1000	21.4	30.0	34.7	54.2	59.7	60.4	69.2	73.2	74.4	79.3	79.5	80.3	80.4	80.8	81.0	81.1
≥ 900	21.4	30.0	34.7	54.2	60.2	60.9	70.3	74.2	75.4	80.4	80.7	81.5	81.6	82.0	82.2	82.4
≥ 800	21.4	31.0	34.7	54.7	61.8	62.6	73.4	77.4	78.6	83.8	84.0	84.8	84.9	85.3	85.5	85.7
≥ 700	21.4	31.3	35.1	55.1	62.2	63.1	74.1	78.1	79.4	84.7	84.9	86.1	86.3	86.7	86.8	87.1
≥ 600	21.4	31.3	35.1	55.2	63.0	64.1	75.8	80.3	82.0	88.1	88.4	89.7	90.0	90.9	91.3	92.1
≥ 500	21.4	31.3	35.1	55.2	63.0	64.1	75.8	80.3	82.0	88.1	88.4	89.7	90.0	90.9	91.3	92.1
≥ 400	21.4	31.3	35.1	55.2	63.0	64.1	75.8	80.3	82.0	88.1	88.4	89.7	90.0	90.9	91.3	92.1
≥ 300	21.4	31.3	35.1	55.2	63.0	64.1	75.8	80.3	82.0	88.1	88.4	89.7	90.0	90.9	91.3	92.1
≥ 200	21.4	31.3	35.1	55.2	63.0	64.1	75.8	80.3	82.0	88.1	88.4	89.7	90.0	90.9	91.3	92.1
≥ 100	21.4	31.3	35.1	55.2	63.0	64.1	75.8	80.3	82.0	88.1	88.4	89.7	90.0	90.9	91.3	92.1
≥ 0	21.4	31.3	35.1	55.2	63.0	64.1	75.8	80.3	82.0	88.1	88.4	89.7	90.0	90.9	91.3	92.1

TOTAL NUMBER OF OBSERVATIONS 757

USAF ETAC FORM 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1577

WPAFFENWOHR AAF DL

73-81

FEF

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

0600-2600

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1.4	≥1	≥.9	≥.8	≥.7	≥.6	≥.5	≥.4
NO CEILING	7.4	11.0	11.9	15.4	17.3	17.7	20.0	21.5	21.6	22.3	22.5	23.1	23.2	23.6	23.6	23.7
≥ 20000	7.4	11.0	11.9	15.4	17.3	17.7	20.0	21.5	21.6	22.3	22.5	23.1	23.2	23.6	23.6	23.7
≥ 18000	7.6	11.1	13.6	17.7	19.9	21.3	23.3	25.2	25.3	26.2	26.5	27.0	27.1	27.5	27.5	27.7
≥ 16000	7.6	11.2	13.7	17.8	20.0	20.4	23.5	25.3	25.4	26.4	26.6	27.1	27.3	27.7	27.7	27.8
≥ 14000	7.6	11.2	13.7	17.8	20.0	20.4	23.5	25.3	25.4	26.5	26.7	27.3	27.4	27.8	27.8	27.9
≥ 12000	7.6	11.2	13.7	17.9	20.2	20.6	23.6	25.4	25.6	26.6	26.9	27.4	27.5	28.1	28.1	28.2
≥ 10000	7.9	11.6	14.1	18.3	20.7	21.1	24.1	26.2	26.4	27.4	27.7	28.2	28.3	29.1	29.1	29.2
≥ 9000	7.9	11.9	14.4	18.7	21.1	21.5	24.5	26.6	26.7	28.1	28.3	28.9	29.0	29.8	29.8	29.9
≥ 8000	9.7	13.2	15.7	20.7	23.2	23.6	26.9	29.0	29.2	30.8	31.1	31.6	31.8	32.5	32.5	32.7
≥ 7000	9.7	13.7	16.2	21.2	23.7	24.1	27.4	29.5	29.8	31.4	31.6	32.1	32.3	33.1	33.1	33.2
≥ 6000	9.2	14.7	16.5	21.5	24.2	24.6	27.9	30.2	30.4	32.0	32.3	32.8	32.9	33.7	33.7	33.9
≥ 5000	10.1	14.9	17.4	22.5	25.7	26.1	29.6	31.9	32.1	33.7	34.0	34.5	34.7	35.4	35.4	35.6
≥ 4500	10.4	15.7	18.2	24.4	28.3	28.7	32.7	35.2	35.4	37.4	37.7	38.2	38.3	39.3	39.3	39.4
≥ 4000	11.2	15.3	18.8	26.3	30.2	30.6	34.9	37.4	37.7	39.7	39.9	40.4	40.6	41.5	41.5	41.6
≥ 3500	11.4	16.9	19.4	27.5	32.1	32.8	37.3	40.2	40.6	42.7	43.2	43.7	43.9	44.8	44.8	44.9
≥ 3000	12.3	17.8	20.3	29.1	34.0	34.7	39.3	42.4	43.0	45.1	45.6	46.1	46.2	47.6	47.6	47.7
≥ 2500	13.2	19.0	21.6	32.1	37.8	38.5	43.3	46.6	47.2	49.3	49.8	50.3	50.5	51.8	51.8	51.9
≥ 2000	14.9	23.9	24.1	35.7	41.4	42.3	47.8	51.4	51.9	54.4	54.9	55.5	55.6	56.9	56.9	57.0
≥ 1800	15.2	21.6	24.8	36.9	42.7	43.6	49.4	53.1	53.6	56.1	56.7	57.2	57.3	58.6	58.6	58.8
≥ 1500	16.5	24.1	27.4	41.2	47.2	48.2	55.3	59.2	59.7	62.3	62.8	63.4	63.5	65.0	65.0	65.1
≥ 1200	16.7	24.6	28.3	43.5	50.3	51.5	59.6	63.5	64.0	66.8	67.3	68.0	68.2	70.0	70.0	70.1
≥ 1000	17.0	24.9	29.1	44.7	52.0	53.2	62.2	67.1	67.6	70.8	71.8	72.5	72.9	74.6	74.6	74.7
≥ 900	17.1	24.9	29.2	45.3	53.2	54.5	63.9	68.6	69.2	72.3	73.8	74.4	75.0	76.7	76.7	76.8
≥ 800	17.1	24.9	29.2	46.1	54.7	56.1	65.9	71.0	71.5	74.7	76.2	76.8	77.3	79.1	79.1	79.2
≥ 700	17.0	24.9	29.2	46.4	55.1	56.7	66.7	72.1	72.6	75.9	77.5	78.1	78.7	80.4	80.4	80.5
≥ 600	17.0	24.9	29.2	46.5	55.3	56.9	67.7	73.5	74.2	77.6	79.4	80.2	80.9	82.7	82.7	83.0
≥ 500	17.1	24.9	29.2	46.6	55.6	57.4	69.3	76.2	77.1	80.5	82.3	83.3	83.9	85.8	85.8	86.3
≥ 400	17.1	24.9	29.2	47.0	56.3	58.2	70.6	78.0	79.1	83.3	85.1	86.2	87.0	88.9	88.9	89.5
≥ 300	17.0	24.9	29.2	47.3	56.3	58.2	71.1	78.9	80.1	84.7	86.6	87.6	88.4	91.2	91.3	91.8
≥ 200	17.0	24.9	29.2	47.3	56.5	58.5	71.7	79.4	80.6	85.5	87.7	88.9	90.4	93.9	95.3	96.3
≥ 100	17.0	24.9	29.2	47.3	56.5	58.5	71.7	79.4	80.6	85.5	87.7	89.1	90.5	94.9	96.2	99.5
≥ 0	17.1	24.9	29.2	47.3	56.5	58.5	71.7	79.4	80.6	85.5	87.7	89.1	90.5	94.9	96.3	100.0

TOTAL NUMBER OF OBSERVATIONS 759

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1977

GRAFENWOHD AAF DL

73-81

FEB

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1977-1980

CEILING FEET	VISIBILITY - STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥2	≥2	≥2	≥2	≥2	≥2	≥2	≥2	≥2
≥2000	6.3	10.7	12.3	17.8	20.4	20.9	22.7	24.4	24.6	25.4	25.4	25.7	25.7	26.1	26.5	26.6
1800	6.3	11.5	13.2	19.4	22.1	22.7	25.0	27.0	27.4	26.2	28.2	28.5	29.5	28.7	28.7	28.7
1600	6.7	12.3	14.7	20.6	23.3	23.8	26.5	28.6	29.0	29.8	29.8	30.0	30.0	30.3	30.3	30.3
1400	7.1	12.6	14.4	20.9	23.7	24.2	26.9	29.0	29.4	30.2	30.2	30.4	30.4	30.7	30.7	30.7
1200	7.1	12.6	14.4	20.9	24.0	24.5	27.1	29.2	29.6	30.4	30.4	30.7	30.7	31.0	31.0	31.0
1000	7.1	12.6	14.4	20.9	24.0	24.5	27.1	29.2	29.6	30.6	30.6	30.8	30.8	31.1	31.1	31.1
800	7.1	12.9	14.9	21.7	24.8	25.3	28.1	30.6	31.0	32.3	32.4	32.9	32.9	33.2	33.2	33.2
600	7.1	12.9	14.9	21.7	24.8	25.3	28.3	30.8	31.2	32.5	32.7	33.2	33.2	33.5	33.5	33.5
400	8.2	14.1	16.2	23.7	26.7	27.3	30.6	33.3	33.7	35.0	35.2	35.7	35.7	36.0	36.0	36.0
200	9.1	15.5	17.7	25.4	28.6	29.1	32.4	35.2	35.6	37.0	37.2	37.7	37.7	37.9	37.9	37.9
100	9.1	15.7	17.8	25.6	28.7	29.2	32.5	35.6	36.0	37.4	37.5	38.1	38.1	38.3	38.3	38.3
50	9.7	16.5	18.6	26.7	29.9	30.4	33.7	36.8	37.2	38.6	38.7	39.3	39.3	39.5	39.5	39.5
25	10.4	17.3	19.8	29.0	32.4	33.1	36.6	39.7	40.2	41.6	41.8	42.3	42.3	42.6	42.6	42.6
15	12.1	19.0	21.5	31.0	35.2	35.8	39.5	42.7	43.2	44.7	44.8	45.3	45.3	45.6	45.6	45.6
10	12.4	19.9	22.7	32.4	36.9	37.5	41.2	44.4	44.9	46.8	46.9	47.4	47.4	47.7	47.7	47.7
5	12.6	21.2	22.9	32.9	37.5	38.2	42.6	46.1	46.8	48.9	49.4	49.9	49.9	50.3	50.3	50.3
2	13.7	21.3	24.1	35.2	40.1	40.7	45.3	49.3	49.9	52.0	52.6	53.1	53.1	53.5	53.5	53.5
1	14.9	23.6	27.7	39.0	44.0	44.7	49.5	53.9	54.8	57.0	57.7	58.2	58.2	58.6	58.6	58.6
0	15.3	24.1	27.5	39.5	45.1	45.7	50.9	55.3	56.3	58.5	59.2	59.7	59.7	60.1	60.1	60.1
0	16.5	26.2	30.0	43.3	49.4	50.1	56.1	61.1	62.1	64.4	65.1	65.7	65.7	66.4	66.4	66.4
0	17.7	27.1	31.4	46.2	53.0	53.8	61.0	66.3	67.3	69.8	70.5	71.3	71.3	71.9	71.9	71.9
0	17.3	29.2	32.5	49.1	56.8	57.7	65.3	71.1	72.2	75.2	75.9	76.7	76.8	77.5	77.5	77.5
0	17.3	28.2	32.5	49.3	57.7	58.6	66.3	72.5	73.5	76.5	77.3	78.7	78.9	79.6	79.6	79.6
0	17.4	28.3	32.7	49.8	58.4	59.8	68.1	74.7	75.8	79.1	79.8	81.2	81.6	82.5	82.5	82.5
0	17.4	28.3	32.7	50.2	58.8	60.2	68.6	75.6	76.7	80.1	80.9	82.2	82.6	83.8	83.8	83.8
0	17.4	28.3	32.7	50.3	59.2	60.7	69.7	77.2	78.5	82.1	82.9	84.2	84.6	85.8	85.8	85.8
0	17.4	28.3	32.7	50.6	59.8	61.5	70.8	79.1	80.5	84.5	85.2	87.0	87.5	88.7	88.7	88.7
0	17.4	28.3	32.7	50.6	59.8	61.5	71.1	79.8	81.3	86.8	88.5	90.5	91.4	93.8	93.8	94.2
0	17.4	28.3	32.7	50.6	59.8	61.5	71.1	79.8	81.4	87.7	89.6	91.8	93.1	96.4	96.6	98.0
0	17.4	28.3	32.7	50.6	59.8	61.5	71.1	79.8	81.4	87.7	89.6	92.0	93.4	97.0	97.4	99.7
0	17.4	28.3	32.7	50.6	59.8	61.5	71.1	79.8	81.4	87.7	89.6	92.0	93.4	97.0	97.4	100.0

TOTAL NUMBER OF OBSERVATIONS

752

USAF ETAC

FORM 66

0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

6670

GRAFENWHR AAF DL

73-81

EEB

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1200-1400

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.75	≥0.5	≥0.25	≥0.1	≥0.05	≥0.01	≥0
NO CEILING ≥ 20000	11.8	17.8	19.6	24.7	26.2	26.2	27.6	27.8	28.1	28.2	28.2	28.2	28.2	28.2	28.2	28.2
≥ 18000 ≥ 6700	12.9	20.2	22.0	28.2	30.7	30.7	32.7	32.9	33.2	33.3	33.3	33.3	33.3	33.3	33.3	33.3
≥ 14000 ≥ 2000	13.1	20.9	22.7	29.3	31.9	31.9	34.0	34.3	34.5	34.6	34.6	34.6	34.6	34.6	34.6	34.6
≥ 10000 ≥ 9000	13.3	22.0	23.9	30.6	33.2	33.2	35.8	36.2	36.5	36.6	36.6	36.6	36.6	36.6	36.6	36.6
≥ 8000 ≥ 7000	14.6	24.1	26.0	32.9	36.0	36.0	39.5	39.9	40.2	40.3	40.3	40.3	40.3	40.3	40.3	40.3
≥ 6000 ≥ 5000	15.4	25.2	27.2	34.4	37.4	37.4	40.9	41.3	41.6	41.7	41.7	41.7	41.7	41.7	41.7	41.7
≥ 4500 ≥ 4000	16.5	26.6	28.6	36.0	39.1	39.1	42.7	43.4	43.7	43.8	43.8	43.8	43.8	43.8	43.8	43.8
≥ 2500 ≥ 1800	17.2	27.4	29.9	37.5	40.7	40.7	44.4	45.1	45.4	45.5	45.5	45.5	45.5	45.5	45.5	45.5
≥ 2200 ≥ 2000	18.1	28.7	31.2	40.6	44.0	44.0	47.8	48.6	48.8	49.2	49.2	49.2	49.2	49.2	49.2	49.2
≥ 1800 ≥ 1500	19.6	31.1	33.9	43.4	47.1	47.1	50.9	51.7	52.0	52.4	52.4	52.4	52.4	52.4	52.4	52.4
≥ 1500 ≥ 1200	20.5	32.5	35.3	45.1	49.1	49.1	53.1	54.7	55.1	55.5	55.5	55.5	55.5	55.5	55.5	55.5
≥ 1200 ≥ 1000	21.4	34.3	37.1	47.1	51.2	51.2	55.4	57.1	57.5	57.9	57.9	57.9	57.9	57.9	57.9	57.9
≥ 900 ≥ 800	24.7	39.1	42.4	53.5	58.0	58.0	62.3	64.3	64.7	65.4	65.5	65.5	65.5	65.5	65.5	65.5
≥ 800 ≥ 700	25.1	40.3	43.6	54.9	59.7	59.7	64.2	66.3	66.7	67.3	67.5	67.5	67.5	67.5	67.5	67.5
≥ 700 ≥ 600	27.7	43.2	47.4	60.6	66.4	66.4	71.4	74.1	74.5	75.2	75.3	75.3	75.3	75.3	75.3	75.3
≥ 600 ≥ 500	28.2	45.0	49.7	63.9	70.6	70.6	75.9	79.1	79.5	80.3	80.4	80.4	80.4	80.4	80.4	80.4
≥ 500 ≥ 400	28.5	45.7	50.8	66.0	73.5	73.5	79.5	82.8	83.3	84.1	84.3	84.3	84.3	84.3	84.3	84.3
≥ 400 ≥ 300	28.5	45.7	50.8	66.3	74.0	74.1	80.6	84.0	84.5	85.4	85.6	85.6	85.6	85.6	85.6	85.6
≥ 300 ≥ 200	28.5	45.8	51.0	67.2	75.7	75.7	82.4	86.5	87.3	88.6	88.7	88.7	88.7	88.7	88.7	88.7
≥ 200 ≥ 100	28.5	45.8	51.0	67.6	76.4	76.4	83.5	87.9	88.8	90.6	90.7	90.9	91.1	91.5	91.5	91.5
≥ 100 ≥ 0	28.5	45.8	51.0	67.6	76.6	76.6	84.5	89.2	90.3	92.1	92.4	92.7	92.8	93.2	93.2	93.2
≥ 0	28.5	45.8	51.0	67.6	76.9	77.2	85.3	91.2	92.3	94.4	94.6	95.0	95.1	95.5	95.5	95.5
≥ 0	28.5	45.8	51.0	67.6	77.0	77.3	85.6	91.5	92.8	95.1	95.8	96.2	96.5	97.5	97.5	97.5
≥ 0	28.5	45.8	51.0	67.6	77.0	77.3	85.6	91.9	93.3	95.8	96.5	96.9	97.2	98.3	98.3	98.3
≥ 0	28.5	45.8	51.0	67.6	77.0	77.3	85.6	91.9	93.4	96.3	97.0	97.6	98.2	99.6	99.7	99.7
≥ 0	28.5	45.8	51.0	67.6	77.0	77.3	85.6	91.9	93.4	96.3	97.0	97.6	98.2	99.7	99.9	100.0

TOTAL NUMBER OF OBSERVATIONS 762

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1977 GRAFENWOHR AAF DL

73-81

FEB

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1500-1700

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥8	≥6	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	13.9	23.2	24.7	29.7	30.6	31.0	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5	31.5
≥ 20000	15.6	26.5	28.3	34.9	36.0	36.5	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0
≥ 18000	16.5	27.6	29.4	36.1	37.1	37.7	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2
≥ 16000	16.9	28.0	29.8	36.5	37.5	38.1	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6
≥ 14000	16.9	28.1	29.9	36.6	37.7	38.2	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7
≥ 12000	17.6	28.9	31.7	37.4	38.6	39.1	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6
≥ 10000	18.1	30.1	31.9	38.6	39.8	40.3	41.2	41.2	41.2	41.3	41.3	41.5	41.5	41.5	41.5	41.5
≥ 9000	19.2	30.6	32.4	39.5	40.7	41.3	42.4	42.4	42.4	42.5	42.5	42.7	42.7	42.7	42.7	42.7
≥ 8000	19.7	32.4	34.4	41.5	43.2	43.8	46.1	46.3	46.3	46.6	46.6	46.7	46.7	46.7	46.7	46.7
≥ 7000	20.2	33.7	35.8	43.2	44.9	45.7	48.3	48.6	48.6	48.8	48.8	49.0	49.0	49.0	49.0	49.0
≥ 6000	20.2	33.7	35.8	43.2	44.9	45.7	48.3	48.6	48.6	48.8	48.8	49.0	49.0	49.0	49.0	49.0
≥ 5000	20.9	34.8	37.7	44.4	46.1	46.9	49.5	49.7	49.7	50.0	50.0	50.1	50.1	50.1	50.1	50.1
≥ 4500	22.3	36.6	38.8	46.7	48.4	49.2	52.0	52.0	52.2	52.5	52.5	52.6	52.6	52.6	52.6	52.6
≥ 4000	24.1	39.0	41.7	50.0	52.0	52.9	55.8	56.3	56.3	56.7	56.7	56.8	56.8	56.8	56.8	56.8
≥ 3500	25.6	41.6	44.4	52.9	55.1	56.0	59.1	59.6	59.6	60.1	60.1	60.2	60.2	60.2	60.2	60.2
≥ 3000	28.1	45.7	48.6	57.1	59.6	60.5	64.0	65.1	65.1	65.7	65.7	65.9	65.9	65.9	65.9	65.9
≥ 2500	29.4	48.2	51.2	60.6	63.1	64.2	67.7	68.8	68.8	69.6	69.6	69.7	69.7	69.7	69.7	69.7
≥ 2000	30.8	50.8	54.1	64.4	67.2	68.5	72.3	73.8	73.9	74.7	74.9	75.1	75.1	75.1	75.1	75.1
≥ 1800	31.0	51.3	54.9	65.2	68.1	69.4	73.2	74.7	74.9	75.7	76.0	76.1	76.1	76.1	76.1	76.1
≥ 1600	32.7	52.4	56.8	68.5	71.9	73.4	77.7	79.4	79.8	80.6	80.8	81.1	81.1	81.1	81.1	81.1
≥ 1400	32.7	53.3	58.3	70.5	74.5	76.0	81.0	83.6	84.0	85.0	85.3	85.7	85.7	85.7	85.7	85.7
≥ 1200	32.8	53.7	59.3	72.6	76.9	78.3	84.3	87.0	87.4	88.5	88.8	89.2	89.2	89.2	89.2	89.2
≥ 1000	32.8	53.7	59.3	72.6	77.6	79.1	85.7	88.8	89.4	90.7	91.1	91.5	91.5	91.6	91.6	91.6
≥ 900	32.8	53.7	59.3	72.6	77.2	78.7	84.9	87.8	88.2	89.5	89.9	90.3	90.3	90.3	90.3	90.3
≥ 800	32.8	53.7	59.3	72.6	77.6	79.1	85.7	88.8	89.4	90.7	91.1	91.5	91.5	91.6	91.6	91.6
≥ 700	32.8	53.7	59.3	73.2	78.9	80.7	88.6	92.3	92.9	94.5	95.3	96.1	96.2	96.6	96.7	96.7
≥ 600	32.8	53.7	59.3	73.2	78.9	80.7	88.6	92.3	93.2	95.0	95.8	96.7	96.9	97.2	97.4	97.4
≥ 500	32.8	53.7	59.3	73.2	78.9	80.7	88.6	92.4	93.3	95.7	96.5	97.5	97.8	98.3	98.6	98.7
≥ 400	32.8	53.7	59.3	73.2	78.9	80.7	88.6	92.4	93.3	95.7	96.6	97.6	97.9	99.2	99.5	99.6
≥ 300	32.8	53.7	59.3	73.2	78.9	80.7	88.6	92.4	93.3	95.7	96.6	97.6	97.9	99.2	99.5	99.6
≥ 200	32.8	53.7	59.3	73.2	78.9	80.7	88.6	92.4	93.3	95.7	96.6	97.6	97.9	99.2	99.5	99.6
≥ 100	32.8	53.7	59.3	73.2	78.9	80.7	88.6	92.4	93.3	95.7	96.6	97.6	97.9	99.2	99.5	99.6
≥ 0	32.8	53.7	59.3	73.2	78.9	80.7	88.6	92.4	93.3	95.7	96.6	97.6	97.9	99.2	99.5	99.6

TOTAL NUMBER OF OBSERVATIONS 762

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1. 677 GRAFENWOHR AAF DL

73-81

FFB

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1800-2100

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING ≥ 20000	13.1	22.6	25.3	30.7	32.2	32.5	33.2	33.6	33.6	34.1	34.3	34.5	34.5	34.5	34.5	34.5
18000	15.1	25.3	28.6	35.2	36.6	37.0	37.8	38.3	38.3	38.8	39.0	39.2	39.2	39.2	39.2	39.2
16000	15.2	25.6	28.9	36.1	37.5	37.9	38.7	39.2	39.2	39.8	39.9	40.2	40.2	40.2	40.2	40.2
14000	15.2	25.6	28.9	36.1	37.5	37.9	38.7	39.2	39.2	39.8	39.9	40.2	40.2	40.2	40.2	40.2
12000	15.2	25.9	29.1	36.4	37.8	38.2	39.0	39.5	39.5	40.0	40.2	40.4	40.4	40.4	40.4	40.4
10000	15.6	26.2	29.5	36.7	38.2	38.6	39.4	39.9	39.9	40.4	40.6	40.8	40.8	40.8	40.8	40.8
9000	16.1	26.8	30.1	37.4	39.0	39.4	40.2	40.7	40.7	41.2	41.3	41.6	41.6	41.6	41.6	41.6
8000	16.1	26.9	30.3	38.1	39.8	40.3	41.3	41.9	41.9	42.4	42.5	42.8	42.8	42.9	42.9	42.9
7000	16.9	28.2	31.9	39.6	41.3	41.9	43.4	44.2	44.2	44.9	45.1	45.4	45.4	45.5	45.5	45.5
6000	17.3	28.9	32.5	40.7	42.4	42.9	44.6	45.5	45.5	46.2	46.5	46.7	46.7	46.9	46.9	46.9
5000	17.3	29.0	32.7	40.8	42.5	43.0	44.9	45.8	45.8	46.5	46.7	47.0	47.0	47.1	47.1	47.1
4500	18.2	31.6	34.3	42.4	44.4	44.9	46.7	47.6	47.6	48.3	48.6	48.8	48.8	49.0	49.0	49.0
4000	19.7	32.8	36.5	46.2	48.6	49.1	51.2	52.2	52.2	52.9	53.1	53.4	53.4	53.5	53.5	53.5
3500	20.7	34.3	37.9	48.2	50.7	51.2	53.7	54.9	54.9	55.5	55.8	56.0	56.0	56.2	56.2	56.2
3000	22.7	36.6	40.3	51.6	54.1	54.6	57.2	58.8	58.8	59.4	59.7	60.0	60.1	60.2	60.2	60.2
2500	22.6	37.8	41.6	53.7	56.4	57.1	60.1	62.1	62.1	63.1	63.4	63.6	63.8	63.9	63.9	63.9
2000	23.6	39.8	43.8	56.8	60.1	60.8	64.0	66.1	66.1	67.2	67.5	67.7	67.8	68.0	68.0	68.0
1500	24.5	41.7	46.5	60.2	63.8	64.7	68.6	70.9	70.9	71.9	72.2	72.4	72.7	72.8	72.8	72.8
1000	24.7	42.1	46.9	60.6	64.3	65.5	69.6	71.8	71.8	73.1	73.4	73.6	73.9	74.0	74.0	74.0
800	25.1	43.0	48.0	63.3	67.5	68.6	73.1	76.4	76.6	78.0	78.2	78.5	78.7	78.9	78.9	78.9
700	25.3	43.6	49.1	65.9	70.1	71.3	76.5	80.1	80.3	82.5	83.1	83.3	83.6	83.9	83.9	83.9
600	25.9	44.5	50.0	68.0	72.6	73.9	80.4	84.0	84.4	86.7	87.3	87.5	87.8	88.2	88.2	88.2
500	25.9	44.5	50.0	68.0	72.6	74.7	80.8	84.6	85.0	87.4	87.9	88.2	88.5	88.8	88.8	88.8
400	25.9	44.5	50.0	68.2	73.2	74.7	82.0	85.8	86.2	88.6	89.1	89.4	89.6	90.0	90.0	90.0
300	26.1	44.6	50.1	68.5	74.1	75.7	83.7	87.9	88.5	90.9	91.5	91.7	92.0	92.4	92.4	92.4
200	26.0	44.6	50.1	68.5	74.7	76.2	84.5	89.0	89.5	92.1	92.7	92.9	93.6	94.0	94.0	94.0
100	26.0	44.6	50.1	68.5	74.9	76.9	85.3	90.2	90.7	93.3	93.8	94.4	95.0	95.4	95.4	95.4
50	26.0	44.6	50.1	68.5	75.1	77.0	85.8	91.2	91.7	94.5	95.0	95.5	96.6	97.1	97.1	97.1
0	26.0	44.6	50.1	68.5	75.1	77.0	85.8	91.3	91.9	94.8	95.3	95.9	97.1	97.9	98.0	98.4
0	26.0	44.6	50.1	68.5	75.1	77.0	85.8	91.3	91.9	94.9	95.4	96.1	97.2	98.0	98.4	99.2
0	26.1	44.6	50.1	68.5	75.1	77.0	85.8	91.3	91.9	94.9	95.4	96.1	97.2	98.2	98.6	99.6
0	26.1	44.6	50.1	68.5	75.1	77.0	85.8	91.3	91.9	94.9	95.4	96.1	97.2	98.2	98.6	99.6

TOTAL NUMBER OF OBSERVATIONS 762

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6977 GRAFENWOHR AAF DL

73-81

FEB

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

2125-2300

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥8	≥6	≥4	≥3	≥2	≥1	≥1/2	≥1/4	≥1/8	≥1/16	≥1/32	≥1/64	≥1/128	≥1/256	≥1/512
NO CEILING	11.7	17.1	21.6	27.7	29.0	29.0	31.1	31.9	31.9	32.3	32.6	33.2	33.2	33.5	33.6	33.8
≥ 20000	12.5	18.7	23.7	30.0	31.3	31.3	33.5	34.3	34.3	34.7	35.0	35.6	35.6	35.9	36.0	36.1
≥ 18000	12.5	18.0	23.7	30.1	31.5	31.5	33.8	34.6	34.6	35.0	35.2	35.9	35.9	36.1	36.3	36.4
≥ 16000	12.5	18.7	23.7	30.1	31.5	31.5	33.8	34.6	34.6	35.0	35.2	35.9	35.9	36.1	36.3	36.4
≥ 14000	12.5	18.0	23.7	30.1	31.5	31.5	33.8	34.6	34.6	35.0	35.2	35.9	35.9	36.1	36.3	36.4
≥ 12000	12.6	18.1	23.1	30.6	32.1	32.1	34.3	35.1	35.1	35.5	35.7	36.4	36.4	36.7	36.8	36.9
≥ 10000	13.0	18.5	23.5	31.3	32.9	32.9	35.1	35.9	35.9	36.3	36.5	37.2	37.2	37.5	37.6	37.7
≥ 9000	13.0	18.7	23.7	31.5	33.2	33.2	35.5	36.3	36.3	36.7	36.9	37.6	37.6	37.8	38.0	38.1
≥ 8000	14.2	20.0	25.1	33.4	35.1	35.1	37.5	38.2	38.2	38.6	38.9	39.6	39.6	39.8	39.9	40.1
≥ 7000	14.3	20.8	25.9	34.3	36.1	36.1	38.8	39.6	39.6	39.9	40.2	40.9	40.9	41.1	41.3	41.4
≥ 6000	14.7	21.2	26.3	34.7	36.8	36.8	39.4	40.2	40.2	40.7	41.0	41.7	41.7	41.9	42.0	42.3
≥ 5000	16.7	22.7	27.9	36.4	38.6	38.6	41.3	42.2	42.2	42.7	43.0	43.8	43.8	44.0	44.2	44.4
≥ 4500	17.3	25.2	30.4	39.7	42.2	42.2	44.9	46.1	46.1	46.6	46.9	47.7	47.7	48.0	48.1	48.4
≥ 4000	18.4	26.8	31.9	42.4	45.1	45.1	47.8	49.1	49.1	49.7	49.9	50.7	50.7	51.2	51.1	51.4
≥ 3500	19.2	28.6	33.8	45.5	48.2	48.2	51.1	52.6	52.6	53.1	53.4	54.1	54.1	54.4	54.5	54.8
≥ 3000	20.0	30.0	35.2	48.8	51.6	51.6	55.2	57.2	57.2	58.0	58.2	59.0	59.0	59.3	59.4	59.7
≥ 2500	20.8	31.1	36.4	51.0	54.1	54.3	58.1	60.2	60.2	61.0	61.2	62.0	62.0	62.3	62.4	62.7
≥ 2000	21.6	32.9	38.6	54.8	58.6	58.7	63.5	66.0	66.0	67.1	67.4	68.2	68.2	68.5	68.6	68.9
≥ 1800	21.9	33.4	39.3	55.8	60.1	60.2	64.9	67.4	67.4	68.7	69.1	69.9	69.9	70.2	70.3	70.5
≥ 1500	22.7	35.0	41.3	58.6	63.7	63.9	69.0	72.1	72.3	73.7	74.1	74.9	74.9	75.2	75.3	75.6
≥ 1200	23.1	35.6	42.4	61.8	67.7	67.8	74.0	77.5	77.9	79.6	80.0	80.8	80.8	81.1	81.2	81.5
≥ 1000	23.7	36.8	43.9	64.1	70.6	70.7	77.5	81.2	81.7	83.6	84.0	84.8	84.8	85.2	85.3	85.5
≥ 900	23.7	36.8	44.0	64.3	71.1	71.2	78.4	82.1	82.7	84.5	84.9	85.7	85.7	85.9	86.2	86.6
≥ 800	23.8	36.9	44.2	64.4	71.7	72.1	79.5	83.2	83.7	85.7	86.1	86.9	86.9	87.1	87.4	87.8
≥ 700	23.9	36.9	44.2	64.8	72.5	72.9	80.8	85.0	85.5	87.5	87.9	88.7	88.7	89.0	89.2	89.6
≥ 600	23.8	36.9	44.2	64.9	72.8	73.2	81.6	86.1	86.6	88.8	89.2	90.1	90.1	90.4	90.7	91.1
≥ 500	23.8	36.9	44.2	64.9	72.8	73.3	81.9	86.9	87.4	89.9	90.3	91.5	91.5	91.7	92.0	92.4
≥ 400	23.8	36.9	44.2	64.9	72.8	73.3	82.7	87.6	88.2	91.1	91.5	92.6	92.6	93.2	93.4	93.8
≥ 300	23.8	36.9	44.2	64.9	72.9	73.5	82.9	88.4	89.0	92.1	92.6	93.8	94.3	94.9	95.1	95.7
≥ 200	23.8	36.9	44.2	64.9	72.9	73.5	83.0	88.7	89.5	92.9	93.4	94.6	95.3	95.9	96.2	97.9
≥ 100	23.8	36.9	44.2	64.9	72.9	73.5	83.0	88.7	89.5	92.9	93.4	94.6	95.5	96.2	96.6	98.6
≥ 0	23.8	36.9	44.2	64.9	72.9	73.5	83.0	88.7	89.5	92.9	93.4	94.6	95.5	96.2	96.6	100.0

TOTAL NUMBER OF OBSERVATIONS 761

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 687.1 GRAFENWOHR AAF DL

73-81

FEET

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

ALL

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	10.3	15.1	18.4	23.5	25.1	25.3	26.9	27.8	27.9	28.8	28.9	29.3	29.4	29.5	29.5	29.6
≥ 20000	11.3	17.7	21.3	26.2	27.9	28.2	30.0	31.0	31.2	32.1	32.2	32.6	32.7	32.8	32.9	32.9
≥ 18000	11.5	18.1	20.7	26.9	28.7	29.0	31.0	32.0	32.2	33.1	33.2	33.6	33.7	33.8	33.8	33.9
≥ 16000	11.6	18.3	20.9	27.1	28.9	29.2	31.1	32.2	32.3	33.3	33.4	33.8	33.8	34.0	34.0	34.1
≥ 14000	11.7	18.3	21.0	27.2	29.1	29.3	31.3	32.3	32.5	33.5	33.6	34.0	34.0	34.2	34.2	34.3
≥ 12000	11.9	18.6	21.2	27.6	29.5	29.7	31.7	32.7	32.9	33.9	34.0	34.4	34.4	34.6	34.6	34.7
≥ 10000	12.3	19.2	21.9	28.4	30.4	30.7	32.8	33.9	34.1	35.2	35.3	35.7	35.8	35.9	36.0	36.1
≥ 9000	12.3	19.4	22.1	28.8	30.8	31.1	33.3	34.4	34.6	35.7	35.8	36.3	36.3	36.5	36.6	36.6
≥ 8000	13.3	20.8	23.6	30.7	32.8	33.1	35.8	37.0	37.2	38.3	38.5	38.9	39.0	39.2	39.2	39.3
≥ 7000	13.4	21.4	24.5	31.9	34.0	34.4	37.2	38.4	38.6	39.8	39.9	40.4	40.4	40.6	40.7	40.7
≥ 6000	13.7	21.8	24.7	32.1	34.3	34.7	37.5	38.8	39.0	40.2	40.3	40.8	40.8	41.0	41.1	41.2
≥ 5000	14.9	23.1	26.7	33.5	35.9	36.3	39.2	40.6	40.8	42.0	42.1	42.6	42.6	42.8	42.9	43.0
≥ 4500	16.0	24.5	27.5	35.9	38.5	39.0	42.0	43.6	43.8	45.1	45.3	45.7	45.8	46.0	46.0	46.1
≥ 4000	17.0	25.9	29.0	38.0	41.0	41.5	44.6	46.3	46.6	48.0	48.1	48.6	48.6	48.8	48.9	49.0
≥ 3500	17.9	27.4	30.7	40.6	43.7	44.2	47.5	49.3	49.6	51.0	51.2	51.7	51.7	51.9	52.0	52.1
≥ 3000	18.9	29.0	32.3	43.1	46.5	47.0	50.6	52.8	53.2	54.8	55.0	55.5	55.6	55.8	55.9	56.0
≥ 2500	19.9	30.4	33.9	45.7	49.4	49.9	53.9	56.3	56.7	58.4	58.6	59.1	59.2	59.5	59.5	59.6
≥ 2000	21.2	32.8	36.8	49.7	53.7	54.3	58.8	61.5	61.8	63.8	64.1	64.6	64.6	64.9	65.0	65.1
≥ 1800	21.5	33.5	37.5	50.6	54.8	55.5	60.1	62.9	63.3	65.3	65.6	66.1	66.1	66.4	66.5	66.6
≥ 1600	22.8	35.4	39.8	54.4	59.2	60.0	65.3	68.6	69.1	71.2	71.5	72.0	72.1	72.4	72.4	72.6
≥ 1400	23.2	36.2	41.7	57.1	62.6	63.4	69.7	73.4	74.0	76.4	76.7	77.2	77.3	77.7	77.8	77.9
≥ 1200	23.5	36.8	42.7	59.3	65.4	66.2	73.4	77.5	78.1	80.8	81.2	81.8	82.0	82.4	82.4	82.6
≥ 1000	23.5	36.9	42.1	59.7	66.1	67.0	74.6	78.8	79.5	82.2	82.7	83.4	83.5	84.0	84.0	84.2
≥ 900	23.6	36.9	42.1	60.1	67.0	68.0	76.0	80.4	81.1	84.0	84.5	85.1	85.3	85.8	85.9	86.1
≥ 800	23.6	36.9	42.2	60.5	67.8	68.9	77.5	82.2	83.0	86.0	86.5	87.3	87.4	88.0	88.1	88.3
≥ 700	23.6	37.0	42.2	60.6	68.2	69.3	78.4	83.3	84.1	87.3	87.9	88.7	88.9	89.6	89.7	89.9
≥ 600	23.6	37.0	42.2	60.7	68.4	69.7	79.1	84.7	85.6	89.0	89.6	90.6	90.9	91.6	91.7	92.0
≥ 500	23.6	37.0	42.2	60.8	68.6	69.9	79.7	85.5	86.5	90.3	91.0	92.0	92.4	93.4	93.4	93.8
≥ 400	23.6	37.0	42.2	60.8	68.6	69.9	79.8	85.8	86.9	91.0	91.8	92.9	93.5	94.8	94.9	95.4
≥ 300	23.6	37.0	42.2	60.8	68.6	69.9	80.0	86.0	87.3	91.7	92.7	93.9	94.8	96.5	97.0	98.1
≥ 200	23.6	37.0	42.2	60.8	68.6	69.9	80.0	86.0	87.3	91.7	92.7	94.0	94.9	96.8	97.5	99.4
≥ 100	23.6	37.0	42.2	60.8	68.6	69.9	80.0	86.0	87.3	91.7	92.7	94.0	94.9	96.8	97.5	100.0

TOTAL NUMBER OF OBSERVATIONS 6079

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
ATMOSPHERIC WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 0870

GRAFENWOHR AAF DL

73-81

MAP

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

000-0200

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥8	≥5	≥4	≥3	≥2	≥1	≥1/2	≥1/4	≥1/8	≥1/16	≥1/32	≥1/64	≥1/128	≥1/256	≥1/512
NO CEILING	15.3	25.9	29.5	37.5	39.0	39.7	41.2	41.6	42.2	42.8	42.9	43.0	43.5	43.6	44.0	44.6
≥20000	27.3	28.8	32.9	41.8	43.6	44.3	46.2	46.5	47.1	47.8	47.9	48.0	48.5	48.6	49.0	49.6
≥18000	20.3	28.8	32.9	41.8	43.7	44.5	46.3	46.8	47.4	48.0	48.1	48.2	48.7	48.8	49.2	49.8
≥16000	27.3	28.8	32.9	41.8	43.7	44.5	46.3	46.8	47.4	48.0	48.1	48.2	48.7	48.8	49.2	49.8
≥14000	20.4	29.2	33.4	42.3	44.2	45.0	46.8	47.3	47.9	48.5	48.6	48.7	49.2	49.3	49.7	50.3
≥12000	20.5	29.3	33.5	42.4	44.3	45.1	46.9	47.4	48.0	48.6	48.7	48.8	49.3	49.5	49.8	50.4
≥10000	20.7	29.5	33.8	43.6	45.6	46.3	48.1	48.6	49.2	49.9	50.1	50.2	50.7	50.8	51.2	51.8
≥9000	20.7	29.5	33.8	43.9	45.8	46.5	48.4	48.8	49.5	50.2	50.3	50.4	50.9	51.0	51.4	52.0
≥8000	22.4	32.0	36.3	46.8	48.7	49.5	51.5	52.1	52.7	53.6	53.7	53.8	54.3	54.4	54.8	55.4
≥7000	23.3	32.9	37.4	48.2	50.3	51.0	53.1	53.7	54.3	55.2	55.3	55.4	55.9	56.0	56.4	57.0
≥6000	23.6	33.2	37.9	49.0	51.0	51.8	53.8	54.4	55.4	56.5	56.6	56.7	57.2	57.4	57.7	58.3
≥5000	23.8	34.0	38.8	49.9	52.0	52.7	54.9	55.5	56.5	57.7	57.8	58.0	58.4	58.6	58.9	59.5
≥4500	25.2	36.1	41.4	53.2	55.7	56.4	59.2	59.9	61.0	62.3	62.6	62.7	63.2	63.3	63.7	64.3
≥4000	26.7	37.7	43.3	55.5	58.0	58.7	61.6	62.5	63.5	64.9	65.1	65.4	65.9	66.0	66.3	67.0
≥3500	27.1	38.6	44.3	57.4	59.8	60.5	63.4	64.3	65.4	66.7	67.0	67.2	67.7	67.8	68.2	68.8
≥3000	29.2	40.7	46.5	60.3	62.9	63.7	66.6	67.4	68.5	69.9	70.1	70.4	70.8	71.0	71.3	71.9
≥2500	30.5	42.2	48.2	62.9	65.7	66.5	69.5	70.4	71.4	72.8	73.0	73.3	73.8	73.9	74.2	74.8
≥2000	31.7	44.1	50.3	66.8	69.6	70.4	73.6	74.5	75.8	77.2	77.4	77.6	78.3	78.4	78.7	79.3
≥1800	32.7	44.6	50.9	67.4	70.2	71.3	74.2	75.3	76.7	78.3	78.5	78.9	79.5	79.6	80.0	80.6
≥1600	32.8	45.8	52.1	69.3	72.9	73.6	77.0	78.5	79.8	81.8	82.0	82.4	83.0	83.1	83.5	84.1
≥1400	33.5	46.7	53.2	71.1	75.1	75.8	79.3	80.8	82.1	84.3	84.6	84.9	85.5	85.9	86.3	86.9
≥1200	34.1	47.3	53.9	72.2	76.2	76.9	80.6	82.1	83.8	86.0	86.3	86.6	87.2	87.6	88.0	88.6
≥1000	34.1	47.4	54.1	72.5	76.8	77.6	81.3	82.9	84.6	86.9	87.1	87.5	88.1	88.5	88.8	89.4
≥900	34.1	47.4	54.1	72.5	77.0	77.9	81.8	83.4	85.1	87.6	87.8	88.2	88.8	89.2	89.6	90.2
≥800	34.3	47.5	54.2	72.7	77.2	78.3	82.6	84.2	85.9	88.6	88.9	89.3	89.9	90.3	90.6	91.3
≥700	34.3	47.5	54.2	72.8	77.3	78.7	83.5	85.1	86.8	89.4	89.8	90.2	90.8	91.1	91.5	92.1
≥600	34.3	47.5	54.2	72.9	78.0	79.6	84.6	86.4	88.2	91.1	91.5	91.9	92.5	93.2	93.7	94.3
≥500	34.3	47.5	54.2	73.1	78.3	79.8	84.9	87.1	89.1	92.2	92.6	93.0	93.6	94.3	94.8	95.4
≥400	34.3	47.5	54.2	73.1	78.3	79.8	85.1	87.4	89.3	92.8	93.3	93.7	94.4	95.4	95.9	96.4
≥300	34.3	47.5	54.2	73.1	78.3	79.8	85.1	87.6	89.6	93.3	93.8	94.2	94.9	96.2	97.1	98.3
≥200	34.3	47.5	54.2	73.1	78.3	79.8	85.1	87.6	89.6	93.3	93.8	94.2	95.7	96.4	97.3	99.1
≥100	34.3	47.5	54.2	73.1	78.3	79.8	85.1	87.6	89.6	93.3	93.8	94.2	95.7	96.4	97.4	100.0

TOTAL NUMBER OF OBSERVATIONS 623

USAF ETAC D-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AI- WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6872 GRAFENLOHR AAF DL

73-81

MAP

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

0328-5500

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING ≥ 20000	13.1	17.9	21.9	30.9	33.1	33.6	35.4	36.2	36.2	36.5	36.5	37.2	37.3	37.5	37.8	38.1
IV 18000	14.8	21.5	25.7	34.7	37.2	37.7	40.1	41.0	41.0	41.2	41.2	41.9	42.1	42.2	42.5	42.8
IV 16000	15.7	20.7	25.2	34.9	37.7	38.2	40.6	41.5	41.5	41.7	41.7	42.4	42.5	42.7	43.0	43.3
IV 14000	15.7	20.7	25.2	34.9	37.7	38.2	40.6	41.5	41.5	41.7	41.7	42.4	42.5	42.7	43.0	43.3
IV 12000	15.7	20.7	25.2	34.9	37.7	38.2	40.6	41.5	41.5	41.7	41.7	42.4	42.5	42.7	43.0	43.3
IV 10000	15.7	20.7	25.2	34.9	37.7	38.2	40.6	41.5	41.5	41.7	41.7	42.4	42.5	42.7	43.0	43.3
IV 9000	15.7	20.7	25.2	34.9	37.7	38.2	40.6	41.5	41.5	41.7	41.7	42.4	42.5	42.7	43.0	43.3
IV 8000	16.8	23.3	27.9	38.7	41.6	42.2	44.6	45.6	45.6	46.4	46.9	47.6	47.8	47.9	48.2	48.5
IV 7000	17.5	24.0	28.6	39.4	42.8	43.4	45.9	47.3	47.5	48.4	48.8	49.6	49.7	49.8	50.2	50.4
IV 6000	17.5	24.0	28.6	39.4	42.8	43.4	45.9	47.3	47.5	48.4	48.8	49.6	49.7	49.8	50.2	50.4
IV 5000	19.3	26.1	30.7	41.8	45.1	45.7	48.2	49.6	49.8	50.7	51.2	51.9	52.0	52.1	52.5	52.7
IV 4500	20.8	28.8	33.8	45.7	49.0	49.7	52.5	54.1	54.3	55.5	56.0	56.7	56.8	57.0	57.3	57.6
IV 4000	21.6	29.6	34.8	46.9	50.3	51.0	54.2	55.8	56.1	57.3	57.8	58.5	58.7	58.8	59.2	59.4
IV 3500	22.4	31.4	36.6	49.5	53.0	53.7	56.8	58.4	58.8	60.1	60.6	61.5	61.6	61.7	62.1	62.3
IV 3000	23.9	33.2	38.7	52.4	56.5	57.3	60.5	62.1	62.4	63.8	64.2	65.1	65.3	65.5	65.8	66.1
IV 2500	25.6	35.3	40.7	55.2	59.5	60.4	63.8	65.3	65.7	67.3	67.8	68.6	68.8	69.0	69.3	69.6
IV 2000	28.5	39.5	45.0	60.8	65.5	66.4	70.1	71.8	72.5	74.2	74.7	75.6	75.9	76.0	76.4	76.6
IV 1800	28.8	39.9	45.5	61.7	66.3	67.3	70.9	72.6	73.3	75.2	75.6	76.6	77.0	77.1	77.5	77.7
IV 1500	29.3	40.6	46.4	63.9	68.6	70.2	73.9	75.9	76.7	78.9	79.5	80.6	81.0	81.1	81.5	81.7
IV 1200	30.3	41.9	48.4	66.8	71.8	73.7	77.6	79.5	80.4	82.8	83.4	84.5	84.8	85.0	85.3	85.6
IV 1000	30.7	42.3	49.2	68.1	73.0	75.0	79.0	81.1	82.3	85.0	85.6	86.7	87.0	87.2	87.5	87.8
IV 900	30.7	42.7	49.6	68.7	73.7	75.6	79.6	81.7	82.9	85.6	86.3	87.4	87.8	87.9	88.2	88.5
IV 800	30.7	42.8	49.7	68.8	73.8	75.8	79.8	81.8	83.0	85.9	86.7	87.8	88.1	88.2	88.6	88.8
IV 700	30.8	43.3	50.2	69.3	74.4	76.6	81.0	83.2	84.4	87.4	88.1	89.2	89.6	89.7	90.1	90.3
IV 600	30.8	43.3	50.2	69.5	74.7	77.1	81.6	83.8	85.1	88.1	88.8	89.9	90.3	90.4	90.8	91.0
IV 500	30.8	43.3	50.2	69.7	75.3	77.7	83.0	85.9	87.3	90.3	91.0	92.1	92.5	92.7	93.1	93.3
IV 400	30.8	43.3	50.2	70.1	75.6	78.1	83.4	86.5	87.9	91.0	91.8	92.8	93.6	93.8	94.2	94.4
IV 300	30.8	43.3	50.2	70.1	75.6	78.1	83.4	86.5	88.0	91.5	92.2	93.3	94.1	94.7	95.2	95.9
IV 200	30.8	43.3	50.2	70.1	75.6	78.1	83.4	86.7	88.2	91.9	92.7	93.9	94.9	95.8	96.7	97.5
IV 100	30.8	43.3	50.2	70.1	75.6	78.1	83.4	86.7	88.2	91.9	93.2	94.4	95.5	96.4	97.3	99.4
IV 0	30.8	43.3	50.2	70.1	75.6	78.1	83.4	86.7	88.2	91.9	93.2	94.4	95.5	96.4	97.3	100.0

TOTAL NUMBER OF OBSERVATIONS 825

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 6970 GRAFENWOHR AAF DL

73-81

MAP

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

6600-6670

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	7.1	10.3	12.2	17.5	20.1	21.8	24.4	26.0	26.2	27.0	27.3	27.7	27.7	28.4	28.7	28.9
≥ 20000	8.7	12.5	15.5	22.0	25.3	27.0	30.2	31.9	32.3	33.3	33.6	34.1	34.1	34.8	35.2	35.6
≥ 18000	8.7	12.5	15.6	22.5	25.8	27.7	31.0	32.6	33.0	34.0	34.3	34.8	34.8	35.6	35.9	36.3
≥ 16000	8.7	12.5	15.6	22.5	25.8	27.7	31.0	32.6	33.0	34.0	34.3	34.8	34.8	35.6	35.9	36.3
≥ 14000	8.8	12.6	15.7	22.6	26.0	27.9	31.6	33.3	33.6	34.6	34.9	35.4	35.4	36.2	36.5	36.9
≥ 12000	8.9	12.8	16.7	23.0	26.4	28.3	32.2	33.7	34.1	35.1	35.4	35.9	35.9	36.6	37.0	37.4
≥ 10000	9.6	13.5	16.9	24.2	27.8	29.9	33.6	35.3	35.7	36.6	37.0	37.5	37.5	38.3	38.7	39.1
≥ 9000	9.6	13.5	16.9	24.2	28.1	30.2	34.1	35.8	36.4	37.4	37.7	38.2	38.2	39.1	39.4	39.8
≥ 8000	10.5	15.4	19.0	26.7	30.6	32.9	36.8	38.5	39.2	40.3	40.6	41.1	41.2	42.2	42.6	42.9
≥ 7000	11.5	16.6	20.3	28.3	32.8	35.1	38.9	40.6	41.4	42.4	42.8	43.3	43.4	44.5	44.9	45.2
≥ 6000	11.6	16.9	20.7	28.9	33.6	35.9	40.0	42.1	42.8	44.0	44.4	45.0	45.1	46.2	46.6	46.9
≥ 5000	12.7	18.3	22.1	30.5	35.6	37.8	42.4	44.5	45.3	46.7	47.0	47.6	47.8	48.9	49.2	49.6
≥ 4500	13.5	19.1	23.3	32.4	37.6	39.9	44.5	46.6	47.4	48.9	49.2	49.8	49.9	51.0	51.4	51.8
≥ 4000	14.1	20.2	24.7	33.7	38.9	41.2	45.8	48.0	48.9	50.3	50.7	51.4	51.5	52.6	53.0	53.3
≥ 3500	15.1	21.9	26.7	36.4	41.8	44.3	49.0	51.1	52.0	53.7	54.1	54.8	54.9	56.1	56.5	56.8
≥ 3000	16.2	23.2	28.3	39.3	45.0	47.6	52.7	55.0	55.9	57.9	58.3	59.0	59.1	60.5	60.8	61.2
≥ 2500	17.7	25.0	30.1	41.4	47.3	49.9	55.4	57.8	58.6	61.2	61.5	62.3	62.4	63.8	64.2	64.6
≥ 2000	20.1	29.1	34.7	48.2	54.9	57.6	63.1	65.5	66.6	69.3	69.8	70.6	70.9	72.4	72.8	73.2
≥ 1800	20.3	29.4	35.2	48.9	55.5	58.2	63.8	66.3	67.4	70.1	70.6	71.5	71.7	73.3	73.6	74.0
≥ 1500	21.9	31.3	37.6	51.9	59.1	62.0	68.2	71.0	72.2	75.2	75.7	76.8	77.0	78.6	79.0	79.3
≥ 1200	22.4	32.4	39.3	54.2	61.5	64.4	70.6	74.1	75.6	78.7	79.3	80.7	80.9	82.6	83.2	83.7
≥ 1000	22.6	32.6	39.7	54.7	62.2	65.4	71.8	75.8	77.3	80.7	81.3	82.7	83.3	85.2	85.6	86.1
≥ 900	22.6	32.8	39.8	54.8	62.4	65.8	72.2	76.2	77.9	81.4	82.1	83.7	84.3	86.0	86.6	87.1
≥ 800	22.6	32.8	39.9	54.9	63.2	66.7	73.2	77.4	79.2	82.7	83.4	85.0	85.6	87.3	88.0	88.5
≥ 700	22.6	32.8	39.9	54.9	63.4	66.9	74.1	78.7	80.7	84.6	85.6	87.3	88.1	90.1	90.8	91.5
≥ 600	22.6	32.8	40.0	55.4	64.1	67.6	75.1	80.4	82.7	86.9	87.9	89.6	90.6	92.6	93.3	94.1
≥ 500	22.6	32.8	40.0	55.4	64.1	67.6	75.1	80.5	82.8	87.5	88.6	90.3	91.5	93.8	94.7	95.4
≥ 400	22.6	32.8	40.0	55.4	64.1	67.6	75.3	80.9	83.2	88.0	89.2	91.2	92.5	94.9	95.8	96.7
≥ 300	22.6	32.8	40.0	55.4	64.1	67.6	75.3	80.9	83.2	88.0	89.2	91.3	92.9	95.5	96.9	98.7
≥ 200	22.6	32.8	40.0	55.4	64.1	67.6	75.3	80.9	83.2	88.0	89.2	91.3	93.0	96.0	97.5	99.8
≥ 100	22.6	32.8	40.0	55.4	64.1	67.6	75.3	80.9	83.2	88.0	89.2	91.3	93.0	96.0	97.5	99.8
≥ 0	22.6	32.8	40.0	55.4	64.1	67.6	75.3	80.9	83.2	88.0	89.2	91.3	93.0	96.0	97.5	99.8

TOTAL NUMBER OF OBSERVATIONS 827

USAF ETAC FORM 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

16870 GRAFENWOHR AAF DL

73-81

MAC

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1960-1969

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005
NO CEILING	9.2	13.3	14.6	20.1	23.4	23.5	24.6	24.8	24.8	25.2	25.2	25.2	25.2	25.2	25.3	25.3
≥ 20000	11.3	17.5	19.2	27.1	30.5	30.7	32.4	32.7	33.0	33.6	33.6	33.6	33.6	33.6	33.7	33.7
18000	11.6	18.1	20.0	28.3	31.8	31.9	33.6	33.9	34.2	34.9	34.8	34.8	34.8	34.9	35.0	35.0
16000	11.6	18.1	20.0	28.3	31.8	31.9	33.6	33.9	34.2	34.9	34.8	34.8	34.8	34.9	35.0	35.0
14000	11.6	18.1	20.0	28.3	31.8	31.9	33.6	33.9	34.2	34.9	34.8	34.8	34.8	34.9	35.0	35.0
12000	12.2	19.0	20.8	29.7	33.1	33.3	35.0	35.4	35.6	36.3	36.3	36.3	36.3	36.4	36.5	36.5
10000	12.9	19.8	21.9	31.0	34.7	35.3	36.9	37.2	37.5	38.1	38.1	38.1	38.1	38.2	38.3	38.3
9000	12.9	20.0	22.0	31.1	34.8	35.2	37.0	37.3	37.6	38.2	38.2	38.2	38.2	38.3	38.4	38.4
8000	14.7	22.3	24.5	34.1	38.0	38.3	40.3	40.6	41.0	41.7	41.7	41.7	41.7	41.8	42.0	42.0
7000	15.3	23.2	25.4	35.6	39.7	40.1	42.5	43.1	43.4	44.2	44.2	44.2	44.2	44.3	44.4	44.4
6000	15.3	23.4	25.5	35.9	39.9	40.4	42.7	43.4	43.8	44.6	44.6	44.6	44.6	44.8	44.9	45.0
5000	16.7	24.9	27.3	38.2	42.3	42.8	45.3	46.0	46.4	47.2	47.2	47.2	47.2	47.3	47.4	47.6
4500	17.5	26.3	28.6	40.0	44.4	44.9	47.3	48.1	48.4	49.4	49.4	49.4	49.4	49.5	49.6	49.9
4000	18.7	27.9	30.4	42.0	46.5	47.0	49.5	50.2	50.6	51.7	51.7	51.7	51.7	51.9	52.1	52.2
3500	19.3	29.6	32.5	44.3	49.0	49.5	52.1	52.8	53.2	54.3	54.3	54.3	54.3	54.5	54.6	54.7
3000	22.7	33.0	36.7	48.8	54.1	54.7	57.7	58.4	58.8	60.0	60.0	60.0	60.0	60.2	60.3	60.5
2500	23.1	34.5	37.7	51.5	56.9	57.5	60.7	61.6	61.9	63.3	63.3	63.3	63.3	63.5	64.0	64.1
2000	26.0	38.6	42.5	57.8	63.3	63.9	67.6	68.6	69.0	70.3	70.3	70.3	70.3	70.6	71.2	71.3
1800	26.6	39.7	43.7	59.4	65.0	65.7	69.5	70.4	70.8	72.1	72.1	72.1	72.1	72.3	73.0	73.1
1500	27.3	41.6	46.1	63.1	69.3	70.2	74.9	76.2	76.5	78.2	78.2	78.2	78.2	78.3	79.3	79.4
1200	28.1	43.2	47.7	65.1	71.9	72.7	77.9	79.7	80.7	83.0	83.0	83.0	83.0	83.1	84.2	84.3
1000	28.3	43.8	48.3	66.1	73.0	74.3	80.0	82.4	83.3	86.3	86.3	86.3	86.3	86.5	87.6	87.7
900	28.6	44.5	49.0	66.9	73.8	75.2	81.0	83.6	84.5	87.7	87.7	87.7	87.7	88.0	89.1	89.2
800	28.7	44.6	49.1	67.2	74.5	75.8	81.6	84.3	85.3	88.4	88.4	88.4	88.4	88.7	89.8	89.9
700	28.7	44.6	49.1	67.2	74.8	76.2	82.0	85.4	86.6	90.1	90.3	90.6	91.1	91.6	92.0	92.0
600	28.7	44.6	49.1	67.3	75.2	76.6	82.7	86.6	87.8	91.7	92.0	92.5	92.9	93.9	94.0	94.1
500	28.7	44.6	49.1	67.3	75.2	76.6	83.0	87.2	88.4	92.5	92.7	93.3	94.2	95.4	95.5	95.5
400	29.7	44.6	49.1	67.3	75.2	76.6	83.0	87.6	89.1	93.7	93.9	94.8	95.6	97.1	97.2	97.2
300	28.7	44.6	49.1	67.3	75.2	76.6	83.3	88.0	89.5	94.3	94.6	95.5	96.4	97.9	98.2	98.3
200	28.7	44.6	49.1	67.3	75.2	76.6	83.3	88.0	89.5	94.3	94.6	95.5	96.4	98.3	98.9	99.5
100	28.7	44.6	49.1	67.3	75.2	76.6	83.3	88.0	89.5	94.3	94.6	95.5	96.4	98.4	99.0	99.9
0	28.7	44.6	49.1	67.3	75.2	76.6	83.5	88.1	89.7	94.4	94.8	95.6	96.5	98.5	99.1	100.0

TOTAL NUMBER OF OBSERVATIONS 822

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6877 GRAFENWOHR AAF DL

73-81

MAP

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1200-1400

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	17.2	23.1	23.7	26.8	27.0	27.0	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1
≥ 20000	27.7	28.8	30.1	35.2	35.8	36.0	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4	36.4
≥ 18000	21.5	30.3	31.6	37.3	37.7	37.8	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3
≥ 16000	21.5	30.3	31.6	37.3	37.7	37.8	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3
≥ 14000	21.9	30.6	32.0	37.4	38.0	38.1	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.6
≥ 12000	21.9	31.0	32.3	37.9	38.5	38.6	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1	39.1
≥ 10000	22.5	32.1	33.4	39.5	40.1	40.2	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7
≥ 9000	22.8	32.6	33.9	40.2	40.8	40.9	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4
≥ 8000	24.8	35.5	37.2	43.5	44.3	44.4	44.9	44.9	44.9	44.9	45.7	45.2	45.2	45.3	45.3	45.3
≥ 7000	26.1	36.8	38.5	45.3	46.2	46.6	47.1	47.1	47.1	47.1	47.2	47.3	47.3	47.5	47.5	47.5
≥ 6000	26.2	37.0	38.7	45.6	47.0	47.3	47.9	47.9	47.9	47.9	48.1	48.2	48.2	48.3	48.3	48.3
≥ 5000	27.2	38.6	40.6	48.1	49.5	49.9	50.5	50.5	50.5	50.5	50.6	50.7	50.7	50.8	50.8	50.8
≥ 4500	28.1	39.8	42.1	50.0	51.6	51.9	52.5	52.5	52.5	52.5	52.7	52.8	52.8	52.9	52.9	52.9
≥ 4000	29.3	41.9	44.2	52.4	54.0	54.4	55.0	55.0	55.0	55.0	55.1	55.2	55.2	55.3	55.3	55.3
≥ 3500	30.5	44.8	47.1	55.3	57.0	57.4	58.0	58.0	58.0	58.0	58.1	58.2	58.4	58.4	58.5	58.5
≥ 3000	38.4	53.9	56.7	65.7	67.7	68.2	68.8	68.8	68.8	68.8	69.0	69.1	69.1	69.2	69.2	69.2
≥ 2500	39.7	55.7	58.7	68.9	70.8	71.3	71.9	71.9	72.2	72.3	72.4	72.5	72.5	72.6	72.6	72.6
≥ 2000	42.3	59.9	63.4	75.5	77.7	78.5	79.5	79.5	79.8	79.9	80.0	80.1	80.1	80.3	80.3	80.3
≥ 1800	42.4	60.5	64.0	76.5	78.7	79.5	80.6	80.6	80.9	81.0	81.1	81.2	81.2	81.4	81.4	81.4
≥ 1600	43.2	63.0	66.7	80.6	83.5	84.5	86.0	86.2	86.7	86.8	86.9	87.0	87.0	87.2	87.2	87.2
≥ 1400	43.9	63.9	67.7	82.1	85.7	86.9	88.9	89.2	90.1	90.4	90.6	90.7	90.7	90.8	90.8	90.8
≥ 1200	44.6	64.5	68.3	83.7	87.4	88.7	91.3	92.0	92.9	93.3	93.5	93.6	93.6	93.7	93.7	93.7
≥ 1000	44.8	64.8	68.5	84.0	88.0	89.5	92.1	92.9	93.7	94.2	94.3	94.4	94.4	94.6	94.6	94.6
≥ 900	44.8	65.1	68.9	84.5	88.6	90.1	92.7	93.5	94.3	94.8	94.9	95.0	95.0	95.2	95.2	95.2
≥ 800	44.8	65.1	68.9	84.5	88.9	90.3	93.8	95.0	95.9	96.4	96.5	96.6	96.6	96.7	96.7	96.7
≥ 700	44.8	65.1	68.9	84.5	89.1	90.7	94.2	95.6	96.5	97.3	97.8	97.9	97.9	98.1	98.1	98.1
≥ 600	44.8	65.1	68.9	84.5	89.1	90.7	94.3	96.2	97.6	98.5	99.3	99.5	99.6	100.0	100.0	100.0
≥ 500	44.8	65.1	68.9	84.5	89.1	90.7	94.3	96.2	97.6	98.5	99.3	99.5	99.6	100.0	100.0	100.0
≥ 400	44.8	65.1	68.9	84.5	89.1	90.7	94.3	96.2	97.6	98.5	99.3	99.5	99.6	100.0	100.0	100.0
≥ 300	44.8	65.1	68.9	84.5	89.1	90.7	94.3	96.2	97.6	98.5	99.3	99.5	99.6	100.0	100.0	100.0
≥ 200	44.8	65.1	68.9	84.5	89.1	90.7	94.3	96.2	97.6	98.5	99.3	99.5	99.6	100.0	100.0	100.0
≥ 100	44.8	65.1	68.9	84.5	89.1	90.7	94.3	96.2	97.6	98.5	99.3	99.5	99.6	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 826

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6970 GRAFENWOHR AAF DL

73-81

MAP

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1530-1700

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.15	≥0.1	≥0.05	≥0.025	≥0.01
NO CEILING	19.3	24.4	24.7	27.5	27.9	28.1	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2
≥20000	26.5	33.5	34.2	38.7	39.4	39.6	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
≥18000	27.8	35.2	35.9	40.7	41.5	41.7	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1
≥16000	27.8	35.2	35.9	40.7	41.5	41.7	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1
≥14000	28.2	36.3	36.7	41.6	42.3	42.5	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9
≥12000	29.1	37.2	37.9	42.9	43.6	43.9	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2	44.2
≥10000	30.5	39.0	40.0	45.1	45.8	46.1	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4
≥9000	31.0	40.0	41.0	46.1	46.8	47.0	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4	47.4
≥8000	34.2	43.8	44.7	50.2	51.0	51.3	51.6	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
≥7000	34.8	44.5	45.5	51.0	52.2	52.5	52.8	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1	53.1
≥6000	35.2	45.0	45.9	51.5	52.7	53.0	53.3	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6
≥5000	36.9	47.3	48.4	54.5	56.0	56.2	56.7	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
≥4500	38.1	48.8	50.3	56.6	58.1	58.3	59.0	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3	59.3
≥4000	39.8	51.2	52.6	59.4	60.8	61.1	61.8	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1
≥3500	42.7	55.3	56.7	63.6	65.2	65.5	66.3	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5	66.5
≥3000	47.6	62.2	64.2	71.2	72.8	73.1	74.3	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7	74.7
≥2500	49.7	64.6	66.9	74.5	76.2	76.7	78.2	78.5	78.7	78.7	78.7	78.7	78.7	78.7	78.7	78.7
≥2000	50.9	67.0	69.7	78.9	81.0	81.5	83.0	83.5	83.6	83.8	83.8	83.8	83.8	83.8	83.8	83.8
≥1800	51.6	68.5	72.0	82.2	84.2	84.7	86.4	86.9	87.0	87.2	87.2	87.2	87.2	87.2	87.2	87.2
≥1500	52.4	70.1	73.8	85.7	87.9	88.4	90.2	90.9	91.0	91.2	91.2	91.2	91.2	91.2	91.2	91.2
≥1200	52.4	70.2	74.1	86.4	88.6	89.1	91.4	92.2	92.6	92.7	92.7	92.7	92.7	92.7	92.7	92.7
≥1000	52.5	70.7	74.5	87.4	89.9	90.4	92.8	93.9	94.8	94.9	94.9	94.9	94.9	94.9	94.9	94.9
≥900	52.5	70.7	74.5	87.9	90.5	91.2	93.8	95.0	96.0	96.1	96.1	96.1	96.1	96.1	96.1	96.1
≥800	52.5	70.7	74.5	88.4	91.6	92.2	94.9	96.1	97.2	97.3	97.3	97.3	97.3	97.3	97.3	97.3
≥700	52.5	70.7	74.5	88.4	91.6	92.2	95.0	96.4	97.5	97.6	97.6	97.6	97.6	97.6	97.6	97.6
≥600	52.5	70.7	74.5	88.4	91.6	92.2	95.0	97.0	98.2	98.7	98.7	98.7	98.7	98.7	98.7	98.7
≥500	52.5	70.7	74.5	88.4	91.6	92.2	95.0	97.0	98.2	98.8	99.0	99.2	99.2	99.2	99.2	99.2
≥400	52.5	70.7	74.5	88.4	91.6	92.2	95.2	97.1	98.3	98.9	99.3	99.4	99.4	99.4	99.4	99.4
≥300	52.5	70.7	74.5	88.4	91.6	92.2	95.2	97.1	98.3	98.9	99.3	99.4	99.4	99.4	99.4	99.4
≥200	52.5	70.7	74.5	88.4	91.6	92.2	95.2	97.1	98.3	98.9	99.3	99.4	99.4	99.4	99.4	99.4
≥100	52.5	70.7	74.5	88.4	91.6	92.2	95.2	97.1	98.3	98.9	99.3	99.4	99.4	99.4	99.4	99.4
≥0	52.5	70.7	74.5	88.4	91.6	92.2	95.2	97.1	98.3	98.9	99.3	99.4	99.4	99.4	99.4	99.4

TOTAL NUMBER OF OBSERVATIONS 825

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6872
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEAR

MAC
MO

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

1800-2000

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	21.9	28.3	37.7	32.4	33.0	33.5	34.4	34.6	34.6	34.8	34.8	34.8	34.8	34.8	34.8	34.8
≥ 20000	27.2	35.8	39.1	41.9	43.0	43.9	44.8	45.1	45.1	45.2	45.2	45.2	45.2	45.2	45.2	45.2
≥ 18000	27.6	37.1	47.3	43.4	44.5	45.3	46.3	46.5	46.5	46.7	46.7	46.7	46.7	46.7	46.7	46.7
≥ 16000	27.6	37.1	47.3	43.4	44.5	45.3	46.3	46.5	46.5	46.7	46.7	46.7	46.7	46.7	46.7	46.7
≥ 14000	28.3	37.9	41.2	44.2	45.3	46.2	47.1	47.4	47.4	47.5	47.5	47.5	47.5	47.5	47.5	47.5
≥ 12000	29.2	39.0	42.3	45.3	46.5	47.4	48.6	49.0	49.0	49.1	49.1	49.1	49.1	49.1	49.1	49.1
≥ 10000	30.6	40.8	44.2	47.9	49.1	49.9	51.4	51.8	51.8	51.9	51.9	51.9	51.9	51.9	51.9	51.9
≥ 9000	31.1	41.3	44.7	48.7	50.3	51.2	52.6	53.0	53.0	53.1	53.1	53.1	53.1	53.1	53.1	53.1
≥ 8000	34.3	44.8	48.2	52.7	54.4	55.4	56.9	57.4	57.4	57.5	57.5	57.5	57.5	57.5	57.5	57.5
≥ 7000	36.2	46.8	50.4	54.9	56.7	57.7	59.3	59.9	59.9	60.0	60.0	60.0	60.0	60.0	60.0	60.0
≥ 6000	36.6	47.4	51.0	55.5	57.4	58.3	60.0	60.6	60.6	60.8	60.8	60.8	60.8	60.8	60.8	60.8
≥ 5000	37.9	49.1	52.9	57.7	59.7	60.6	62.5	63.3	63.3	63.4	63.4	63.4	63.4	63.4	63.4	63.4
≥ 4500	38.9	51.0	55.0	61.4	63.4	64.4	66.6	67.4	67.4	67.6	67.6	67.6	67.6	67.6	67.6	67.6
≥ 4000	40.5	53.3	57.5	63.9	66.0	67.1	69.3	70.1	70.1	70.2	70.2	70.2	70.2	70.2	70.2	70.2
≥ 3500	42.7	55.3	59.5	67.0	69.0	70.2	72.4	73.3	73.3	73.4	73.4	73.4	73.4	73.4	73.4	73.4
≥ 3000	45.3	59.1	63.8	71.6	73.6	74.8	77.2	78.4	78.4	78.5	78.5	78.5	78.5	78.5	78.5	78.5
≥ 2500	46.1	59.9	64.9	73.0	75.2	76.5	78.9	80.2	80.3	80.4	80.4	80.4	80.4	80.4	80.4	80.4
≥ 2000	47.1	61.7	66.7	77.6	80.0	81.3	83.8	85.5	85.7	85.8	85.8	85.8	85.8	85.8	85.8	85.8
≥ 1800	47.3	62.5	68.0	80.0	82.3	83.6	86.1	87.8	88.0	88.1	88.1	88.1	88.1	88.1	88.1	88.1
≥ 1500	47.6	63.2	69.0	81.4	84.3	85.7	88.2	90.0	90.2	90.3	90.3	90.3	90.3	90.3	90.3	90.3
≥ 1200	47.8	63.3	69.1	81.9	84.9	86.3	88.9	90.9	91.1	91.3	91.4	91.4	91.4	91.5	91.5	91.5
≥ 1000	47.9	63.5	69.4	82.9	86.1	87.5	90.5	92.5	93.1	93.4	93.6	93.6	93.6	93.7	93.7	93.7
≥ 900	47.9	63.5	69.4	83.1	86.4	87.8	90.9	92.8	93.4	93.8	93.9	93.9	93.9	94.0	94.0	94.0
≥ 800	47.9	63.8	69.6	83.7	87.2	88.7	92.1	94.3	94.9	95.3	95.4	95.4	95.4	95.5	95.5	95.5
≥ 700	47.9	63.8	69.6	83.8	87.5	88.9	92.5	94.8	95.5	95.9	96.0	96.0	96.0	96.1	96.1	96.1
≥ 600	47.9	63.8	69.6	83.8	87.5	89.1	92.7	95.3	96.4	97.1	97.2	97.2	97.2	97.3	97.3	97.3
≥ 500	47.9	63.8	69.6	83.8	87.5	89.1	93.2	96.0	97.1	98.2	98.4	98.5	98.5	98.7	98.7	98.7
≥ 400	47.9	63.8	69.6	83.8	87.5	89.1	93.3	96.1	97.2	98.7	99.0	99.1	99.1	99.3	99.5	99.6
≥ 300	47.9	63.8	69.6	83.8	87.5	89.1	93.3	96.1	97.2	98.7	99.0	99.1	99.1	99.3	99.6	99.8
≥ 200	47.9	63.8	69.6	83.8	87.5	89.1	93.3	96.1	97.2	98.7	99.0	99.1	99.1	99.3	99.6	99.8
≥ 100	47.9	63.8	69.6	83.8	87.5	89.1	93.3	96.1	97.2	98.7	99.0	99.1	99.1	99.3	99.6	99.8
≥ 0	47.9	63.8	69.6	83.8	87.5	89.1	93.3	96.1	97.2	98.7	99.0	99.1	99.1	99.3	99.6	99.8

TOTAL NUMBER OF OBSERVATIONS 821

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
ATC WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 6870 GRAFEN-CHR AAF DI

73-81

MAC

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

2132-2300

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	22.2	31.7	33.5	38.4	39.6	40.4	41.7	42.4	42.7	43.4	43.4	43.5	43.8	44.0	44.0	44.0
≥ 20000	23.9	33.9	36.7	42.7	44.1	44.9	46.7	47.4	47.7	48.4	48.4	48.5	48.8	49.0	49.0	49.0
≥ 18000	24.3	34.4	37.2	43.3	44.8	45.5	47.3	48.2	48.4	49.1	49.1	49.3	49.5	49.8	49.8	49.8
≥ 16000	24.4	34.5	37.3	43.4	44.9	45.6	47.4	48.3	48.5	49.3	49.3	49.4	49.6	49.9	49.9	49.9
≥ 14000	25.1	35.2	39.1	44.1	45.6	46.3	48.2	49.0	49.3	50.0	50.0	50.1	50.4	50.6	50.6	50.6
≥ 12000	25.4	35.6	38.4	44.6	46.1	46.8	48.9	49.8	50.0	50.7	50.7	50.9	51.1	51.3	51.3	51.3
≥ 10000	25.6	36.1	38.9	46.1	47.6	48.3	50.5	51.3	51.6	52.3	52.3	52.4	52.7	52.9	52.9	52.9
≥ 9000	25.9	36.3	39.1	46.3	47.9	48.7	50.9	51.7	52.0	52.7	52.7	52.8	53.0	53.3	53.3	53.3
≥ 8000	28.1	39.9	42.9	50.9	52.4	53.2	55.6	56.5	56.7	57.4	57.6	57.7	58.0	58.3	58.3	58.3
≥ 7000	28.8	40.7	43.8	51.7	53.3	54.1	56.6	57.4	57.7	58.4	58.5	58.7	59.0	59.3	59.3	59.3
≥ 6000	29.1	41.3	44.4	52.4	54.0	54.9	57.3	58.2	58.5	59.3	59.4	59.5	59.9	60.1	60.1	60.1
≥ 5000	30.9	43.8	47.7	55.2	56.8	57.7	60.5	61.3	61.7	62.4	62.6	62.7	63.0	63.3	63.3	63.3
≥ 4500	33.3	46.5	51.1	59.5	61.1	62.0	64.9	65.7	66.1	66.8	67.0	67.1	67.4	67.7	67.7	67.7
≥ 4000	35.1	48.8	52.8	62.7	64.3	65.1	68.0	68.9	69.3	70.0	70.1	70.2	70.6	70.9	70.9	70.9
≥ 3500	36.2	50.6	54.6	65.2	66.8	67.7	70.6	71.5	71.8	72.7	72.8	72.9	73.3	73.5	73.5	73.5
≥ 3000	37.8	52.8	57.7	67.9	69.8	70.6	73.8	74.6	75.0	75.9	76.0	76.1	76.5	76.7	76.7	76.7
≥ 2500	38.8	54.1	58.4	70.2	72.6	73.4	76.6	77.4	77.8	78.8	78.9	79.0	79.4	79.6	79.6	79.6
≥ 2000	40.0	55.9	60.4	74.6	77.2	78.0	81.3	82.2	82.6	83.8	83.9	84.0	84.4	84.8	84.8	84.8
≥ 1800	40.0	56.1	60.7	75.5	78.0	78.9	82.2	83.0	83.4	84.6	84.8	84.9	85.2	85.6	85.6	85.6
≥ 1500	40.7	57.1	62.1	77.7	80.9	81.7	85.4	86.2	86.6	87.8	87.9	88.0	88.4	88.8	88.8	88.8
≥ 1200	40.7	57.1	62.1	78.0	81.8	82.7	86.6	87.4	87.9	89.1	89.4	89.5	89.9	90.2	90.2	90.2
≥ 1000	41.7	57.2	62.2	78.5	82.3	83.2	87.4	88.3	88.9	90.1	90.4	90.5	90.9	91.2	91.2	91.2
≥ 900	40.7	57.2	62.2	78.7	82.7	84.1	88.4	89.3	89.9	91.3	91.6	91.8	92.2	92.6	92.6	92.6
≥ 800	40.7	57.2	62.2	78.9	83.0	84.6	89.0	90.1	90.7	92.3	92.7	93.0	93.4	93.8	93.8	93.8
≥ 700	40.7	57.2	62.2	79.1	83.5	85.1	90.0	91.2	91.8	93.5	93.9	94.3	94.6	95.0	95.0	95.0
≥ 600	40.7	57.2	62.2	79.1	83.7	85.4	90.7	92.0	92.6	94.3	94.6	95.0	95.4	95.7	95.7	95.7
≥ 500	40.7	57.2	62.2	79.1	83.8	85.5	91.1	92.7	93.5	95.6	96.1	96.5	96.8	97.2	97.3	97.3
≥ 400	40.7	57.2	62.2	79.1	83.8	85.5	91.3	92.9	93.8	96.1	96.6	97.0	97.3	97.7	97.9	98.0
≥ 300	40.7	57.2	62.2	79.1	83.8	85.5	91.3	93.0	93.9	96.6	97.1	97.4	97.8	98.4	98.7	98.8
≥ 200	40.7	57.2	62.2	79.1	83.8	85.5	91.3	93.0	94.0	96.8	97.3	97.7	98.2	98.8	99.5	99.8
≥ 100	40.7	57.2	62.2	79.1	83.8	85.5	91.3	93.0	94.0	96.8	97.3	97.7	98.2	98.8	99.5	99.8
≥ 50	40.7	57.2	62.2	79.1	83.8	85.5	91.3	93.0	94.0	96.8	97.3	97.7	98.2	98.8	99.5	99.8
≥ 20	40.7	57.2	62.2	79.1	83.8	85.5	91.3	93.0	94.0	96.8	97.3	97.7	98.2	98.8	99.5	99.8

TOTAL NUMBER OF OBSERVATIONS 820

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6377 GRAFENWOHR AAF DL

73-81

MAR

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

ALL

CEILING FEET	VISIBILITY - STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.3	≥0.2	≥0.1	≥0.05	≥0.03	≥0.01
NO CEILING	16.0	21.6	23.9	28.9	30.4	30.9	32.1	32.6	32.8	33.1	33.2	33.3	33.4	33.6	33.7	33.9
≥20000	19.2	26.4	29.1	35.5	37.4	38.0	39.6	40.1	40.3	40.7	40.8	41.0	41.1	41.2	41.4	41.5
≥18000	19.6	27.1	29.8	36.5	38.4	39.1	40.7	41.2	41.4	41.8	41.9	42.1	42.2	42.3	42.5	42.6
≥16000	19.6	27.1	29.8	36.5	38.4	39.1	40.7	41.2	41.4	41.8	41.9	42.1	42.2	42.3	42.5	42.6
≥14000	19.9	27.5	30.3	37.0	38.9	39.6	41.2	41.8	42.0	42.4	42.4	42.6	42.7	42.9	43.0	43.2
≥12000	20.3	28.1	30.8	37.6	39.6	40.3	42.0	42.6	42.8	43.2	43.2	43.4	43.5	43.7	43.8	44.0
≥10000	21.1	29.0	31.8	39.1	41.2	41.9	43.7	44.3	44.4	44.9	45.0	45.2	45.3	45.5	45.6	45.8
≥9000	21.2	29.3	32.2	39.6	41.7	42.5	44.3	44.9	45.1	45.5	45.6	45.8	45.9	46.1	46.3	46.4
≥8000	23.2	32.1	35.1	42.9	45.1	45.9	47.8	48.4	48.7	49.2	49.4	49.6	49.7	49.9	50.1	50.2
≥7000	24.2	33.2	36.2	44.3	46.7	47.5	49.5	50.2	50.4	51.0	51.1	51.3	51.5	51.7	51.9	52.0
≥6000	24.4	33.5	36.6	44.8	47.3	48.1	50.1	50.9	51.3	51.9	52.0	52.2	52.4	52.6	52.8	52.9
≥5000	25.7	35.2	38.4	47.0	49.6	50.4	52.6	53.5	53.8	54.4	54.6	54.8	55.2	55.2	55.3	55.5
≥4500	26.9	37.1	40.6	49.8	52.6	53.4	55.8	56.7	57.0	57.8	57.9	58.2	58.3	58.5	58.7	58.8
≥4000	28.2	38.8	42.5	52.1	54.8	55.7	58.1	59.1	59.4	60.2	60.3	60.6	60.7	61.0	61.1	61.3
≥3500	29.4	40.9	44.8	54.8	57.7	58.6	61.1	62.0	62.4	63.2	63.3	63.6	63.8	64.0	64.2	64.3
≥3000	32.5	44.7	48.9	59.6	62.8	63.8	66.4	67.4	67.8	68.7	68.8	69.1	69.3	69.5	69.7	69.8
≥2500	33.9	46.4	50.7	62.2	65.5	66.5	69.4	70.4	70.8	71.8	72.0	72.3	72.4	72.6	72.9	73.1
≥2000	35.8	49.5	54.1	67.5	71.1	72.2	75.3	76.4	76.9	78.0	78.2	78.5	78.7	79.1	79.2	79.4
≥1800	36.1	50.1	55.0	68.9	72.5	73.6	76.7	77.9	78.4	79.6	79.7	80.1	80.3	80.6	80.8	80.9
≥1500	36.9	51.6	56.7	71.7	75.8	77.0	80.5	81.9	82.5	83.8	84.0	84.3	84.6	84.9	85.1	85.2
≥1200	37.4	52.3	57.7	73.2	77.7	79.0	82.6	84.2	85.1	86.5	86.8	87.2	87.4	87.9	88.0	88.2
≥1000	37.7	52.7	58.2	74.2	78.8	80.2	84.2	86.0	87.0	88.7	89.0	89.4	89.7	90.1	90.3	90.5
≥900	37.7	52.9	58.4	74.6	79.3	80.9	84.9	86.8	87.9	89.6	89.9	90.4	90.6	91.1	91.3	91.4
≥800	37.7	53.0	58.5	74.9	79.9	81.5	85.6	87.6	88.7	90.5	90.8	91.3	91.6	92.0	92.2	92.4
≥700	37.8	53.1	58.6	75.0	80.2	81.8	86.3	88.5	89.7	91.6	92.0	92.5	92.8	93.2	93.4	93.6
≥600	37.8	53.1	58.6	75.0	80.3	82.1	86.8	89.2	90.5	92.7	93.1	93.6	93.9	94.4	94.6	94.8
≥500	37.8	53.1	58.6	75.1	80.6	82.4	87.4	90.2	91.5	93.9	94.4	94.9	95.4	96.0	96.2	96.4
≥400	37.8	53.1	58.6	75.2	80.6	82.4	87.6	90.5	91.9	94.5	95.1	95.7	96.2	96.9	97.2	97.4
≥300	37.8	53.1	58.6	75.2	80.6	82.4	87.6	90.7	92.1	94.9	95.5	96.1	96.7	97.5	97.9	98.3
≥200	37.8	53.1	58.6	75.2	80.6	82.4	87.6	90.7	92.2	95.1	95.7	96.3	96.9	97.9	98.6	99.1
≥100	37.8	53.1	58.6	75.2	80.6	82.4	87.6	90.7	92.2	95.1	95.7	96.4	97.0	98.1	98.8	99.7
≥0	37.8	53.1	58.6	75.2	80.6	82.4	87.7	90.7	92.2	95.1	95.7	96.4	97.1	98.1	98.8	100.0

TOTAL NUMBER OF OBSERVATIONS 6591

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6870 GRAFENWOHR AAF DL

73-81

APP

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

0000-2200

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥1	≥1/2	≥1/4	≥1/8	≥1/16	≥1/32	≥1/64	≥1/128	≥1/256	≥1/512
NO. CEILING	23.7	37.5	41.2	45.0	46.6	46.8	47.7	48.2	48.3	48.5	48.5	48.5	48.5	48.5	48.5	48.5
≥ 25000	25.6	47.6	44.2	49.0	51.2	51.3	52.3	52.9	53.0	53.4	53.4	53.4	53.4	53.4	53.9	53.9
≥ 18000	25.6	47.6	44.2	49.0	51.2	51.3	52.3	52.9	53.0	53.4	53.4	53.4	53.4	53.4	53.9	53.9
≥ 16000	25.6	47.6	44.2	49.0	51.2	51.3	52.3	52.9	53.0	53.4	53.4	53.4	53.4	53.4	53.9	53.9
≥ 14000	25.6	47.6	44.2	49.0	51.2	51.3	52.3	52.9	53.0	53.4	53.4	53.4	53.4	53.4	53.9	53.9
≥ 12000	26.2	41.2	44.9	49.7	51.8	52.0	53.0	53.5	53.6	54.0	54.0	54.0	54.0	54.1	54.6	54.6
≥ 10000	26.9	42.5	46.1	51.3	53.5	53.6	54.8	55.3	55.4	55.8	55.8	55.8	55.8	55.9	56.4	56.4
≥ 9000	27.2	42.8	46.5	51.8	54.2	54.4	55.8	56.3	56.4	56.8	56.8	56.8	56.8	56.9	57.4	57.4
≥ 8000	29.4	46.4	50.1	55.9	57.9	58.0	59.6	60.5	60.6	61.0	61.0	61.0	61.0	61.1	61.6	61.6
≥ 7000	29.9	47.3	51.0	56.5	59.2	59.3	60.8	62.0	62.1	62.5	62.5	62.5	62.5	62.6	63.1	63.1
≥ 6000	31.1	47.8	51.5	57.0	59.7	59.8	61.3	62.5	62.6	63.0	63.0	63.0	63.0	63.1	63.6	63.6
≥ 5000	32.1	50.4	54.1	60.1	62.9	63.1	64.8	65.9	66.0	66.4	66.4	66.4	66.4	66.5	67.0	67.0
≥ 4500	33.1	52.2	56.0	62.5	66.2	66.4	68.6	69.7	69.8	70.2	70.2	70.2	70.2	70.3	70.8	70.8
≥ 4000	33.8	53.7	58.7	65.7	69.8	70.1	72.2	73.4	73.5	73.9	73.9	73.9	73.9	74.0	74.5	74.5
≥ 3500	34.1	54.5	59.8	67.3	71.6	71.9	74.0	75.2	75.3	75.7	75.7	75.7	75.7	75.8	76.3	76.3
≥ 3000	34.9	56.5	61.7	70.1	74.7	74.9	77.2	78.5	78.6	79.2	79.2	79.2	79.2	79.3	79.8	79.8
≥ 2500	36.2	59.3	63.9	73.0	78.1	78.3	80.6	81.9	82.0	82.6	82.6	82.6	82.6	82.8	83.3	83.3
≥ 2000	36.6	60.3	65.0	76.3	81.6	81.9	84.5	85.8	85.9	86.7	86.7	86.7	86.7	86.8	87.3	87.3
≥ 1800	36.6	60.3	65.0	76.3	81.6	81.9	84.5	85.8	85.9	86.7	86.7	86.7	86.7	86.8	87.3	87.3
≥ 1600	37.1	61.2	65.9	78.8	84.5	84.8	87.5	88.8	89.0	89.7	89.7	89.7	89.7	89.9	90.4	90.4
≥ 1400	37.9	62.1	66.9	80.9	86.9	87.2	89.9	91.5	91.6	92.4	92.4	92.4	92.4	92.5	93.0	93.0
≥ 1200	38.1	62.9	67.7	82.9	89.0	89.5	92.1	93.8	93.9	94.8	94.8	94.8	94.8	94.9	95.4	95.4
≥ 1000	38.1	62.9	67.7	83.4	89.6	90.1	93.3	95.3	95.4	96.3	96.3	96.3	96.3	96.5	97.0	97.0
≥ 900	38.1	62.9	67.7	83.7	89.9	90.4	93.7	95.8	95.9	96.8	96.8	96.8	96.8	97.0	97.5	97.5
≥ 800	38.1	62.9	67.7	83.8	91.0	90.5	93.9	96.1	96.2	97.1	97.1	97.1	97.1	97.2	97.7	97.7
≥ 700	38.1	62.9	67.7	83.8	91.0	90.5	93.9	96.1	96.2	97.1	97.1	97.1	97.1	97.2	97.7	97.7
≥ 600	38.1	62.9	67.7	83.8	91.0	90.5	93.9	96.1	96.2	97.1	97.1	97.1	97.1	97.2	97.7	97.7
≥ 500	38.1	62.9	67.7	83.8	91.0	90.5	93.9	96.1	96.2	97.1	97.1	97.1	97.1	97.2	97.7	97.7
≥ 400	38.1	62.9	67.7	83.8	91.0	90.5	93.9	96.1	96.2	97.1	97.1	97.1	97.1	97.2	97.7	97.7
≥ 300	38.1	62.9	67.7	83.8	91.0	90.5	93.9	96.1	96.2	97.1	97.1	97.1	97.1	97.2	97.7	97.7
≥ 200	38.1	62.9	67.7	83.8	91.0	90.5	93.9	96.1	96.2	97.1	97.1	97.1	97.1	97.2	97.7	97.7
≥ 100	38.1	62.9	67.7	83.8	91.0	90.5	93.9	96.1	96.2	97.1	97.1	97.1	97.1	97.2	97.7	97.7
≥ 50	38.1	62.9	67.7	83.8	91.0	90.5	93.9	96.1	96.2	97.1	97.1	97.1	97.1	97.2	97.7	97.7
≥ 0	38.1	62.9	67.7	83.8	91.0	90.5	93.9	96.1	96.2	97.1	97.1	97.1	97.1	97.2	97.7	97.7

TOTAL NUMBER OF OBSERVATIONS 789

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION GRAFENWOHR AAF DL

73-81

APP

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

350-7500

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	15.3	25.7	37.9	37.0	39.5	39.8	40.9	42.5	42.5	43.1	43.3	43.5	43.5	43.7	44.2	44.4
≥ 20000	16.5	28.1	33.5	40.2	42.8	43.2	44.5	46.0	46.0	46.8	47.0	47.1	47.3	47.5	48.0	48.2
≥ 18000	16.5	28.1	33.5	40.2	42.8	43.2	44.5	46.0	46.0	46.8	47.0	47.1	47.3	47.5	48.0	48.2
≥ 16000	16.5	28.1	33.5	40.2	42.8	43.2	44.5	46.0	46.0	46.8	47.0	47.1	47.3	47.5	48.0	48.2
≥ 14000	16.5	28.1	33.5	40.2	42.8	43.2	44.5	46.0	46.0	46.8	47.0	47.1	47.3	47.5	48.0	48.2
≥ 12000	16.6	28.6	34.3	40.7	43.3	43.7	45.0	46.5	46.5	47.3	47.5	47.7	47.8	48.0	48.5	48.7
≥ 10000	17.1	29.8	35.1	41.8	44.5	44.9	46.3	47.9	47.9	48.7	48.9	49.0	49.2	49.6	50.1	50.4
≥ 9000	17.1	29.9	35.2	42.3	45.0	45.4	46.9	48.5	48.5	49.6	49.8	49.9	50.1	50.4	51.0	51.3
≥ 8000	18.5	31.4	37.4	45.1	47.9	48.3	50.2	52.0	52.0	53.0	53.2	53.4	53.5	53.9	54.4	54.8
≥ 7000	19.6	32.7	38.9	46.9	49.7	50.3	52.2	54.2	54.2	55.3	55.5	55.6	55.8	56.1	56.7	57.0
≥ 6000	20.7	33.3	39.7	47.7	50.4	51.1	53.0	55.0	55.0	56.0	56.3	56.4	56.5	56.9	57.4	57.8
≥ 5000	21.4	35.9	42.3	50.8	54.0	54.6	56.8	59.1	59.1	60.2	60.5	60.6	60.7	61.1	61.6	62.0
≥ 4500	22.4	37.3	43.7	52.9	56.9	57.7	60.2	62.6	62.6	64.0	64.3	64.4	64.5	64.9	65.4	65.8
≥ 4000	23.1	38.4	45.6	55.0	59.3	60.2	62.9	65.3	65.3	66.8	67.0	67.2	67.3	67.7	68.2	68.6
≥ 3500	23.4	39.9	47.1	57.4	62.2	63.1	65.9	68.3	68.3	69.8	70.1	70.2	70.3	70.7	71.2	71.6
≥ 3000	24.6	41.7	48.9	60.1	64.9	65.8	68.7	71.4	71.4	72.9	73.1	73.3	73.4	73.8	74.3	74.7
≥ 2500	24.8	42.6	50.2	62.1	67.4	68.7	72.2	75.0	75.0	76.6	76.8	76.9	77.1	77.4	77.9	78.3
≥ 2000	25.5	43.9	51.6	64.3	70.2	71.5	75.2	78.1	78.1	79.7	80.1	80.2	80.4	80.7	81.2	81.6
≥ 1800	25.5	43.9	51.6	64.8	70.7	72.0	75.7	78.6	78.6	80.2	80.6	80.7	80.9	81.2	81.7	82.1
≥ 1500	26.0	45.8	53.7	67.4	74.5	75.8	79.7	83.1	83.1	84.8	85.2	85.3	85.4	85.8	86.3	86.7
≥ 1200	26.4	46.3	54.4	69.1	76.7	77.9	82.3	85.8	85.8	87.6	88.0	88.1	88.2	88.6	89.1	89.5
≥ 1000	26.7	47.3	55.1	70.8	78.6	80.2	84.9	88.6	88.6	90.6	91.0	91.1	91.3	91.6	92.1	92.6
≥ 900	26.7	47.0	55.3	71.2	79.0	80.6	85.3	89.0	89.0	91.0	91.4	91.5	91.6	92.0	92.5	93.0
≥ 800	26.7	47.3	55.3	72.1	80.0	81.6	86.4	90.1	90.1	92.1	92.5	92.6	92.8	93.2	93.7	94.2
≥ 700	26.7	47.0	55.4	72.6	80.9	82.5	87.6	91.4	91.4	93.5	93.9	94.0	94.2	94.6	95.1	95.6
≥ 600	26.7	47.3	55.4	72.6	80.9	82.5	87.6	91.4	91.4	93.5	94.0	94.6	94.7	95.1	95.6	96.1
≥ 500	26.7	47.0	55.4	72.6	80.9	82.5	87.6	91.4	91.4	93.5	94.0	94.6	95.1	95.3	95.8	96.3
≥ 400	26.7	47.0	55.4	72.6	81.0	82.6	87.7	91.5	91.5	94.0	94.7	95.2	95.4	95.9	96.5	97.0
≥ 300	26.7	47.0	55.4	72.6	81.0	82.6	87.7	91.5	91.5	94.4	95.1	95.6	95.8	96.3	96.8	97.3
≥ 200	26.7	47.0	55.4	72.6	81.0	82.6	87.8	91.6	91.6	94.6	95.2	95.7	95.9	96.5	97.5	98.2
≥ 100	26.7	47.0	55.4	72.6	81.0	82.6	87.8	91.6	91.6	94.6	95.2	95.7	95.9	96.6	97.6	99.5
≥ 0	26.7	47.1	55.5	72.8	81.1	82.8	88.0	91.8	91.8	94.7	95.3	95.8	96.1	96.7	97.7	100.0

TOTAL NUMBER OF OBSERVATIONS 789

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

16877 GREENWICH AAF DL

73-81

APR

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1600-0800

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	9.4	16.7	19.7	26.0	31.2	32.3	34.9	36.6	36.9	37.7	37.7	37.8	37.8	37.9	38.4	39.1
≥20000	10.7	19.7	23.1	30.4	36.4	37.7	40.6	42.3	43.0	44.0	44.0	44.1	44.2	44.3	44.8	45.5
≥18000	10.7	19.8	23.2	30.5	36.6	37.8	40.7	42.5	43.1	44.2	44.2	44.3	44.5	44.6	45.1	45.7
≥16000	10.7	19.8	23.2	30.5	36.6	37.8	40.7	42.5	43.1	44.2	44.2	44.3	44.5	44.6	45.1	45.7
≥14000	10.7	19.8	23.2	30.5	36.6	37.8	40.7	42.5	43.1	44.2	44.2	44.3	44.5	44.6	45.1	45.7
≥12000	10.7	19.8	23.2	30.5	36.6	37.8	40.7	42.5	43.1	44.2	44.2	44.3	44.5	44.6	45.1	45.7
≥10000	11.6	21.2	24.6	32.2	38.6	39.9	43.3	45.1	45.7	47.4	47.4	47.6	47.7	47.9	48.4	49.0
≥9000	11.6	21.2	24.6	32.2	38.6	39.9	43.3	45.1	45.7	47.4	47.4	47.6	47.7	47.9	48.4	49.0
≥8000	11.6	21.6	25.0	32.8	39.2	40.6	44.1	45.9	46.5	48.1	48.1	48.4	48.5	48.6	49.1	49.7
≥7000	11.7	22.9	26.4	34.9	41.7	43.1	46.9	48.7	49.4	51.1	51.1	51.4	51.5	51.6	52.1	52.8
≥6000	11.8	23.2	26.9	35.9	42.7	44.3	48.2	50.1	50.9	52.6	52.6	53.0	53.1	53.5	54.2	54.6
≥5000	11.9	23.7	27.5	36.6	43.3	45.0	48.9	50.8	51.5	53.3	53.3	53.6	53.8	54.1	54.6	55.3
≥4500	12.8	25.3	29.4	38.7	46.0	47.7	51.8	53.8	54.5	56.3	56.3	56.7	56.9	57.3	57.8	58.4
≥4000	13.3	26.6	30.8	40.5	48.6	50.5	54.5	56.7	57.4	59.7	59.7	60.1	60.3	60.8	61.3	61.9
≥3500	13.7	27.5	32.1	42.2	50.6	52.5	56.7	58.8	59.7	61.9	61.9	62.1	62.4	62.7	63.2	63.7
≥3000	15.1	29.9	34.3	45.2	53.6	55.5	59.8	62.1	62.9	65.2	65.3	66.0	66.2	66.7	67.2	68.0
≥2500	15.5	30.7	35.6	47.0	56.4	58.3	62.6	64.8	65.7	68.6	68.7	69.3	69.6	70.1	70.6	71.4
≥2000	16.0	31.5	36.8	48.9	58.5	60.6	64.9	67.5	68.3	71.2	71.4	72.0	72.2	72.7	73.2	74.0
≥1800	16.7	33.3	38.8	51.9	62.2	64.2	69.2	72.4	73.4	76.5	76.6	77.3	77.5	78.0	78.5	79.3
≥1600	16.7	33.3	38.8	52.4	62.7	64.8	69.8	73.0	74.0	77.1	77.3	77.9	78.1	78.6	79.1	79.9
≥1400	17.1	34.4	40.1	54.5	65.3	67.5	73.0	76.1	77.1	80.4	80.5	81.2	81.4	81.9	82.4	83.2
≥1200	17.5	35.3	41.1	56.2	67.1	69.5	75.3	78.8	79.9	83.3	83.4	84.0	84.3	84.9	85.3	86.1
≥1000	17.5	35.6	41.5	57.7	68.1	70.6	77.0	80.8	81.9	85.6	85.7	86.4	86.7	87.2	87.7	88.4
≥900	17.5	35.6	41.5	57.4	68.8	71.4	77.8	81.7	82.8	86.6	86.7	87.4	87.7	88.2	88.7	89.4
≥800	17.5	35.6	41.5	58.0	69.6	72.2	78.9	82.9	84.2	88.1	88.2	89.2	89.4	89.9	90.5	91.2
≥700	17.5	35.6	41.6	58.3	69.8	72.5	79.3	83.7	84.9	89.1	89.2	90.2	90.5	91.0	91.5	92.2
≥600	17.5	35.6	41.6	58.8	70.4	73.0	79.8	84.3	85.6	89.7	89.8	90.8	91.1	91.6	92.1	92.8
≥500	17.5	35.6	41.6	58.9	70.6	73.2	80.4	85.3	86.7	91.2	91.3	92.8	93.1	94.0	94.6	95.6
≥400	17.5	35.6	41.6	58.9	71.0	73.6	80.8	85.7	87.2	92.2	92.3	94.1	94.3	95.2	95.9	96.9
≥300	17.5	35.6	41.6	58.9	71.0	73.6	80.8	85.7	87.2	92.5	92.6	94.3	94.6	95.5	96.1	97.4
≥200	17.5	35.6	41.6	58.9	71.0	73.6	80.9	85.8	87.3	92.6	92.7	94.5	94.8	96.1	97.0	99.0
≥100	17.5	35.6	41.6	58.9	71.0	73.6	80.9	85.8	87.3	92.6	92.7	94.5	94.8	96.4	97.2	99.9
≥50	17.5	35.6	41.6	58.9	71.0	73.6	80.9	85.8	87.3	92.6	92.7	94.5	94.8	96.4	97.2	99.9

TOTAL NUMBER OF OBSERVATIONS 796

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6870 SPAFEN OHR AAF DL

73-81

APR

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1900-1100

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	17.1	26.4	27.8	34.0	35.0	35.0	35.6	35.8	35.8	35.9	35.9	35.9	35.9	35.9	36.1	36.1
≥ 20000	20.5	32.0	33.5	40.4	42.0	42.0	42.8	42.9	42.9	43.0	43.0	43.0	43.0	43.1	43.3	43.3
≥ 18000	20.6	32.5	34.0	41.4	43.3	43.3	44.0	44.1	44.1	44.3	44.3	44.3	44.3	44.4	44.5	44.5
≥ 16000	20.6	32.5	34.0	41.4	43.3	43.3	44.0	44.1	44.1	44.3	44.3	44.3	44.3	44.4	44.5	44.5
≥ 14000	20.8	32.9	34.4	41.8	43.6	43.6	44.4	44.5	44.5	44.6	44.6	44.6	44.6	44.8	44.9	44.9
≥ 12000	21.0	33.3	34.8	42.3	44.1	44.1	44.9	45.0	45.0	45.1	45.1	45.1	45.1	45.3	45.4	45.4
≥ 10000	22.0	34.6	36.1	44.4	46.5	46.5	47.4	47.5	47.5	47.6	47.6	47.6	47.6	47.8	47.9	47.9
≥ 9000	22.0	34.6	36.1	44.4	46.5	46.5	47.4	47.5	47.5	47.6	47.6	47.6	47.6	47.8	47.9	47.9
≥ 8000	23.5	37.6	39.1	48.1	50.6	50.6	51.5	51.8	51.8	51.9	51.9	51.9	51.9	52.0	52.1	52.1
≥ 7000	24.0	39.3	39.9	49.1	51.8	51.8	52.6	52.9	52.9	53.0	53.0	53.0	53.0	53.1	53.3	53.3
≥ 6000	24.0	38.5	40.1	49.4	52.0	52.0	52.9	53.1	53.1	53.3	53.3	53.3	53.3	53.4	53.5	53.5
≥ 5000	24.6	39.9	41.6	51.3	53.9	53.9	55.0	55.3	55.3	55.4	55.4	55.4	55.4	55.5	55.6	55.6
≥ 4500	25.6	41.6	43.5	53.3	56.3	56.3	57.4	57.6	57.6	57.9	57.9	57.9	57.9	58.0	58.1	58.1
≥ 4000	27.5	44.3	46.6	56.9	59.9	59.9	61.1	61.5	61.5	61.8	61.8	61.8	61.8	61.9	62.0	62.0
≥ 3500	29.1	47.1	50.1	61.0	64.3	64.3	65.6	66.0	66.0	66.3	66.3	66.3	66.3	66.4	66.5	66.5
≥ 3000	31.8	51.5	54.5	66.4	70.5	70.5	72.1	72.5	72.5	72.9	72.9	72.9	72.9	73.0	73.1	73.1
≥ 2500	33.5	54.3	57.6	70.5	75.0	75.1	76.8	77.1	77.1	77.5	77.5	77.5	77.5	77.6	77.8	77.8
≥ 2000	34.9	56.9	61.1	75.1	79.9	80.0	81.9	82.6	82.8	83.1	83.1	83.1	83.1	83.3	83.4	83.4
≥ 1800	34.9	57.0	61.3	76.0	80.9	81.0	82.9	83.6	83.8	84.1	84.1	84.1	84.1	84.3	84.4	84.4
≥ 1500	35.1	59.0	63.9	80.5	85.5	85.6	87.6	88.4	88.5	89.0	89.0	89.0	89.0	89.1	89.3	89.3
≥ 1200	35.4	59.6	64.9	82.3	87.6	87.8	89.8	90.6	90.8	91.3	91.3	91.3	91.3	91.4	91.5	91.5
≥ 1000	35.4	60.0	65.3	83.8	89.6	90.0	92.9	94.0	94.1	95.1	95.1	95.1	95.1	95.3	95.4	95.4
≥ 900	35.4	60.0	65.3	83.9	90.0	90.4	93.3	94.4	94.5	95.5	95.5	95.5	95.5	95.6	95.8	95.8
≥ 800	35.4	60.0	65.3	84.3	90.4	90.8	93.6	94.8	94.9	96.0	96.0	96.0	96.0	96.1	96.6	96.6
≥ 700	35.4	60.0	65.3	84.3	90.9	91.3	94.1	95.3	95.4	96.6	96.6	96.6	96.6	96.9	97.3	97.5
≥ 600	35.4	60.0	65.3	84.3	90.9	91.3	94.1	95.4	95.6	97.1	97.1	97.1	97.1	97.5	97.9	98.1
≥ 500	35.4	60.0	65.4	84.4	91.0	91.4	94.4	95.8	96.0	97.8	97.8	97.8	97.8	98.3	98.8	99.0
≥ 400	35.4	60.0	65.4	84.4	91.0	91.4	94.4	95.9	96.1	97.9	97.9	97.9	97.9	98.4	98.9	99.1
≥ 300	35.4	60.0	65.4	84.4	91.0	91.4	94.4	96.1	96.4	98.1	98.1	98.1	98.1	98.6	99.1	99.4
≥ 200	35.4	60.0	65.4	84.4	91.0	91.4	94.4	96.1	96.4	98.1	98.1	98.1	98.1	98.6	99.4	99.8
≥ 100	35.4	60.0	65.4	84.5	91.1	91.5	94.5	96.3	96.5	98.3	98.3	98.3	98.3	98.8	99.5	99.9
≥ 0	35.4	60.0	65.4	84.5	91.1	91.5	94.5	96.3	96.5	98.3	98.3	98.3	98.3	98.8	99.5	99.9

TOTAL NUMBER OF OBSERVATIONS 600

USAF ETAC FORM 1-1-64 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 1977 GRAFFEN OHR AAF OH

73-81

APP

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1200-1400

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥8	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.75	≥0.5	≥0.25	≥0.15	≥0.1	≥0.05	≥0
NO CEILING	21.3	29.6	37.1	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
≥ 20000	26.5	37.3	38.0	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7	39.7
≥ 18000	26.8	38.2	38.8	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6
≥ 16000	26.8	38.2	38.8	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6
≥ 14000	27.3	38.7	39.3	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1
≥ 12000	27.5	38.8	39.5	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2	41.2
≥ 10000	28.2	39.8	40.4	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3
≥ 9500	28.5	40.7	41.4	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3	43.3
≥ 9000	30.2	42.9	43.7	45.7	45.7	45.7	45.8	45.8	45.8	45.8	45.8	45.8	45.8	45.8	45.8	45.8
≥ 7000	32.0	44.9	45.7	47.8	47.8	47.8	47.9	47.9	47.9	47.9	47.9	47.9	47.9	47.9	47.9	47.9
≥ 6000	32.1	45.3	46.3	48.4	48.4	48.4	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6
≥ 5000	34.1	48.4	49.7	51.9	51.9	51.9	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1
≥ 4500	36.1	50.9	52.2	54.6	54.6	54.6	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7	54.7
≥ 4000	39.7	54.4	55.7	58.4	58.4	58.4	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6	58.6
≥ 3500	42.7	59.2	67.8	63.8	63.8	63.8	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9
≥ 3000	48.9	68.7	72.4	75.3	75.8	75.8	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9	75.9
≥ 2500	53.6	74.4	76.7	81.9	82.4	82.4	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8	82.8
≥ 2000	54.6	78.7	80.6	86.6	87.3	87.3	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6
≥ 1800	54.6	78.3	81.3	87.3	87.9	87.9	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3	88.3
≥ 1500	56.6	81.1	84.5	91.6	92.4	92.4	92.9	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0	93.0
≥ 1200	57.2	81.8	85.1	93.0	93.8	93.9	94.6	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8	94.8
≥ 1000	57.3	82.4	86.0	94.6	95.6	95.8	96.9	97.3	97.3	97.3	97.3	97.3	97.3	97.4	97.4	97.4
≥ 900	57.3	82.5	86.1	94.9	95.9	96.1	97.3	97.9	97.9	97.9	97.9	97.9	97.9	98.0	98.0	98.0
≥ 800	57.3	82.5	86.1	95.5	96.5	96.8	97.9	98.5	98.5	98.5	98.5	98.5	98.5	98.6	98.6	98.6
≥ 700	57.4	82.8	86.4	95.9	96.9	97.1	98.3	98.9	98.9	98.9	98.9	98.9	98.9	99.1	99.1	99.1
≥ 600	57.4	82.8	86.4	95.9	96.9	97.1	98.4	99.1	99.1	99.1	99.1	99.1	99.1	99.8	99.8	99.8
≥ 500	57.4	82.8	86.5	96.0	97.0	97.3	98.5	99.3	99.3	99.3	99.3	99.3	99.3	99.9	99.9	99.9
≥ 400	57.4	82.8	86.5	96.0	97.0	97.3	98.5	99.3	99.3	99.3	99.3	99.3	99.3	99.9	99.9	99.9
≥ 300	57.4	82.8	86.5	96.0	97.0	97.3	98.5	99.3	99.3	99.3	99.3	99.3	99.3	99.9	99.9	99.9
≥ 200	57.4	82.8	86.5	96.0	97.0	97.3	98.5	99.3	99.3	99.3	99.3	99.3	99.3	99.9	99.9	99.9
≥ 100	57.4	82.8	86.5	96.0	97.0	97.3	98.5	99.3	99.3	99.3	99.3	99.3	99.3	99.9	99.9	99.9
≥ 50	57.4	82.8	86.5	96.0	97.0	97.3	98.5	99.3	99.3	99.3	99.3	99.3	99.3	99.9	99.9	99.9

TOTAL NUMBER OF OBSERVATIONS 801

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AT: WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6873
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEAR

APR
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1500-1700
TIME

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1.25	≥1	≥0.75	≥0.5	≥0.25	≥0.15	≥0.1	≥0
NO CEILING	25.7	33.9	33.9	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4	34.4
≥ 20000	37.9	42.5	42.5	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0	43.0
≥ 18000	31.7	43.9	43.9	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4
≥ 16000	31.7	43.9	43.9	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4
≥ 14000	31.7	44.0	44.0	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5
≥ 12000	31.7	44.7	44.7	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2
≥ 10000	34.0	47.2	47.2	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8
≥ 9000	34.1	47.9	47.9	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6
≥ 8000	39.0	54.2	54.3	55.0	55.1	55.1	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2
≥ 7000	39.6	55.0	55.1	56.0	56.1	56.1	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2
≥ 6000	39.6	55.2	55.3	56.2	56.3	56.3	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5	56.5
≥ 5000	42.5	58.8	59.7	59.8	60.0	60.0	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.1	60.1
≥ 4500	44.9	62.1	62.2	63.1	63.2	63.2	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4
≥ 4000	47.9	66.5	65.6	68.0	68.3	68.3	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4	68.4
≥ 3500	52.3	72.5	72.8	74.4	74.7	74.7	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8	74.8
≥ 3000	56.6	79.9	79.4	82.2	82.8	82.9	83.1	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2	83.2
≥ 2500	58.1	81.7	82.4	85.8	86.4	86.6	86.7	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8
≥ 2000	59.1	84.1	85.1	89.3	90.0	90.1	90.2	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3	90.3
≥ 1800	59.5	84.6	85.6	89.8	90.5	90.6	90.7	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8	90.8
≥ 1500	60.6	86.3	87.7	92.6	93.5	93.7	93.9	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0
≥ 1200	60.6	86.7	88.3	94.7	95.6	95.9	96.0	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1	96.1
≥ 1000	61.1	87.3	89.2	95.9	96.7	97.0	97.6	97.7	97.9	98.0	98.0	98.0	98.0	98.0	98.0	98.0
≥ 900	61.1	87.3	89.2	95.9	96.7	97.0	97.7	97.9	98.0	98.1	98.1	98.1	98.1	98.1	98.1	98.1
≥ 800	61.1	87.3	89.2	96.0	96.9	97.1	98.1	98.5	98.6	99.0	99.0	99.0	99.0	99.0	99.0	99.0
≥ 700	61.1	87.3	89.2	96.0	96.9	97.1	98.1	98.5	98.6	99.0	99.0	99.0	99.0	99.0	99.0	99.0
≥ 600	61.1	87.3	89.2	96.0	97.0	97.2	98.6	99.0	99.1	99.6	100.0	100.0	100.0	100.0	100.0	100.0
≥ 500	61.1	87.3	89.2	96.0	97.0	97.2	98.6	99.0	99.1	99.6	100.0	100.0	100.0	100.0	100.0	100.0
≥ 400	61.1	87.3	89.2	96.0	97.0	97.2	98.6	99.0	99.1	99.6	100.0	100.0	100.0	100.0	100.0	100.0
≥ 300	61.1	87.3	89.2	96.0	97.0	97.2	98.6	99.0	99.1	99.6	100.0	100.0	100.0	100.0	100.0	100.0
≥ 200	61.1	87.3	89.2	96.0	97.0	97.2	98.6	99.0	99.1	99.6	100.0	100.0	100.0	100.0	100.0	100.0
≥ 100	61.1	87.3	89.2	96.0	97.0	97.2	98.6	99.0	99.1	99.6	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	61.1	87.3	89.2	96.0	97.0	97.2	98.6	99.0	99.1	99.6	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 797

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1977 GRAFENWOHR AAF, DL

73-81

APR

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1800-2400

CEILING FEET	VISIBILITY STATUTE MILES															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2.5	≥ 2	≥ 1.5	≥ 1	≥ .5	≥ .3	≥ .2	≥ .1	≥ .05	≥ .03	≥ .01
NO CEILING ≥ 20000	27.6	36.6	38.3	39.4	39.5	39.5	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8
W 18000	32.7	45.6	47.3	48.8	49.2	49.2	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4
W 16000	34.5	47.5	49.2	50.7	51.1	51.1	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3
W 14000	34.5	47.5	49.2	50.7	51.1	51.1	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3
W 12000	34.5	47.5	49.2	50.7	51.1	51.1	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3
W 10000	37.0	50.3	52.1	54.0	54.4	54.4	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6
W 9000	37.0	50.3	52.1	54.0	54.4	54.4	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6
≥ 8000	41.6	56.7	59.1	61.0	61.6	61.6	61.9	61.9	61.9	61.9	62.0	62.0	62.0	62.0	62.0	62.0
≥ 7000	42.1	57.8	60.2	62.2	63.0	63.0	63.4	63.4	63.4	63.4	63.8	63.8	63.8	63.9	63.9	64.0
≥ 6000	42.5	58.6	61.1	63.1	63.9	63.9	64.3	64.3	64.3	64.3	64.6	64.6	64.6	64.8	64.8	64.9
≥ 5000	44.7	61.0	63.6	65.7	66.4	66.4	66.8	66.8	66.8	66.8	67.2	67.2	67.2	67.3	67.3	67.4
≥ 4500	46.3	63.9	66.7	68.8	69.6	69.6	70.0	70.0	70.0	70.0	70.3	70.3	70.3	70.5	70.5	70.6
≥ 4000	49.1	68.4	71.5	74.1	74.9	75.0	75.5	75.5	75.5	75.5	75.9	75.9	75.9	76.0	76.0	76.2
≥ 3500	53.6	71.6	74.8	77.7	78.5	78.6	79.1	79.1	79.1	79.1	79.5	79.5	79.5	79.6	79.6	79.7
≥ 3000	53.7	75.4	79.7	82.3	83.1	83.3	83.9	83.9	83.9	83.9	84.5	84.5	84.5	84.7	84.7	84.8
≥ 2500	55.4	78.8	82.4	86.6	87.5	87.6	88.2	88.2	88.2	88.2	88.8	88.8	88.8	89.0	89.0	89.1
≥ 2000	56.1	79.7	83.3	88.0	88.8	89.0	89.7	89.7	89.7	89.7	90.4	90.4	90.4	90.5	90.5	90.6
≥ 1800	56.5	80.4	83.9	88.6	89.5	89.6	90.4	90.4	90.4	90.4	91.0	91.0	91.0	91.1	91.1	91.3
≥ 1500	56.9	81.2	84.8	90.4	91.4	91.5	92.3	92.3	92.3	92.3	92.9	92.9	92.9	93.0	93.0	93.2
≥ 1200	56.9	81.7	85.6	91.9	93.2	93.4	94.2	94.4	94.4	94.4	95.2	95.2	95.2	95.3	95.3	95.4
≥ 1000	57.3	82.1	85.9	92.9	94.8	95.1	95.9	96.5	96.5	96.5	97.2	97.2	97.2	97.3	97.3	97.5
≥ 900	57.3	82.3	86.1	93.0	94.9	95.2	96.1	96.6	96.6	96.6	97.3	97.3	97.3	97.5	97.5	97.6
≥ 800	57.3	82.3	86.1	93.2	95.1	95.3	96.3	97.1	97.1	97.1	97.8	97.8	97.8	98.0	98.0	98.1
≥ 700	57.3	82.3	86.2	93.3	95.2	95.4	96.6	97.5	97.5	97.5	98.2	98.2	98.2	98.4	98.4	98.5
≥ 600	57.3	82.3	86.2	93.3	95.4	95.8	97.0	97.8	97.8	97.8	99.0	99.0	99.0	99.1	99.2	99.4
≥ 500	57.3	82.3	86.2	93.3	95.4	95.8	97.0	97.8	97.8	97.8	99.0	99.0	99.0	99.1	99.2	99.4
≥ 400	57.3	82.3	86.2	93.3	95.4	95.8	97.0	97.8	97.8	97.8	99.0	99.0	99.0	99.1	99.2	99.4
≥ 300	57.3	82.3	86.2	93.3	95.4	95.8	97.0	97.8	97.8	97.8	99.0	99.0	99.0	99.1	99.2	99.4
≥ 200	57.3	82.3	86.2	93.3	95.4	95.8	97.0	97.8	97.8	97.8	99.0	99.0	99.0	99.1	99.2	99.4
≥ 100	57.3	82.3	86.2	93.3	95.4	95.8	97.0	97.8	97.8	97.8	99.0	99.0	99.0	99.1	99.2	99.4
≥ 0	57.3	82.3	86.2	93.3	95.4	95.8	97.0	97.8	97.8	97.8	99.0	99.0	99.0	99.1	99.2	99.4

TOTAL NUMBER OF OBSERVATIONS 789

USAF ETAC FORM 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6572
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

APP
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

2100-2300
TIME

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0
NO CEILING	31.7	41.1	44.9	48.0	48.4	48.4	48.8	48.8	48.8	48.8	48.8	48.8	48.8	48.8	48.9	48.9
≥ 20000	33.7	45.1	49.2	52.7	53.6	53.6	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.0	54.1	54.2
≥ 18000	34.0	45.4	49.4	53.0	53.9	53.9	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.4	54.5
≥ 16000	34.7	45.4	49.4	53.0	53.9	53.9	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.4	54.5
≥ 14000	34.7	45.4	49.4	53.0	53.9	53.9	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.4	54.5
≥ 12000	34.5	46.1	50.2	53.7	54.6	54.6	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.1	55.3
≥ 10000	35.9	48.2	52.3	55.9	56.8	56.8	57.2	57.2	57.2	57.3	57.3	57.3	57.3	57.3	57.4	57.5
≥ 9000	36.0	48.7	52.9	56.7	57.9	57.9	58.3	58.3	58.3	58.4	58.4	58.4	58.4	58.4	58.6	58.7
≥ 8000	39.2	52.9	57.4	61.3	62.6	62.6	63.4	63.6	63.6	63.8	63.8	63.9	63.9	64.0	64.0	64.1
≥ 7000	39.3	53.6	58.2	62.5	63.8	63.8	64.5	65.0	65.0	65.1	65.1	65.3	65.3	65.5	65.5	65.7
≥ 6000	39.7	54.5	59.1	63.4	64.6	64.6	65.4	65.9	65.9	66.0	66.0	66.2	66.2	66.4	66.4	66.5
≥ 5000	42.5	57.5	62.2	66.7	67.9	67.9	68.7	69.3	69.5	69.6	69.6	69.7	69.7	70.0	70.0	70.1
≥ 4500	44.6	61.7	65.8	70.8	72.1	72.1	73.1	73.8	73.9	74.0	74.0	74.1	74.1	74.4	74.4	74.5
≥ 4000	45.7	62.7	67.9	73.5	74.9	74.9	75.9	76.6	76.7	76.8	76.8	76.9	76.9	77.2	77.2	77.3
≥ 3500	45.4	63.9	69.2	75.2	76.8	76.8	77.8	78.5	78.6	78.7	78.7	78.8	78.8	79.8	79.1	79.2
≥ 3000	47.3	66.9	72.5	79.2	80.9	80.9	81.9	83.0	83.1	83.3	83.3	83.4	83.4	83.7	83.7	83.8
≥ 2500	48.3	68.8	74.4	81.5	83.3	83.3	84.3	85.4	85.6	85.7	85.7	85.8	85.8	86.1	86.1	86.2
≥ 2000	49.4	71.1	76.8	85.3	87.2	87.2	88.3	89.5	89.6	89.7	89.7	89.9	89.9	90.1	90.1	90.2
≥ 1800	49.4	71.1	76.8	85.3	87.2	87.2	88.5	89.6	89.7	89.9	89.9	90.0	90.0	90.2	90.2	90.4
≥ 1500	49.8	72.0	77.7	87.2	89.1	89.1	90.7	92.0	92.1	92.3	92.3	92.4	92.4	92.6	92.6	92.6
≥ 1200	50.6	72.8	78.5	88.6	90.5	90.5	92.4	93.9	94.0	94.3	94.3	94.4	94.4	94.7	94.7	94.8
≥ 1000	51.1	73.3	79.7	90.0	92.1	92.1	94.4	95.9	96.1	96.3	96.3	96.5	96.5	96.7	96.7	96.7
≥ 900	51.1	73.3	79.7	90.2	92.4	92.4	94.8	96.5	96.6	96.8	96.8	97.0	97.0	97.2	97.2	97.3
≥ 800	51.1	73.3	79.7	90.5	92.9	92.9	95.6	97.3	97.5	97.8	97.8	98.0	98.0	98.2	98.2	98.4
≥ 700	51.1	73.3	79.7	90.6	93.3	93.3	96.2	98.0	98.1	98.5	98.5	98.6	98.6	98.9	98.9	99.0
≥ 600	51.1	73.3	79.7	90.9	93.5	93.5	96.5	98.2	98.4	98.9	98.9	99.0	99.0	99.2	99.2	99.4
≥ 500	51.1	73.3	79.0	90.9	93.5	93.5	96.5	98.4	98.5	99.0	99.0	99.1	99.1	99.2	99.5	99.6
≥ 400	51.1	73.3	79.0	90.9	93.5	93.5	96.5	98.4	98.5	99.0	99.0	99.1	99.1	99.2	99.5	99.6
≥ 300	51.1	73.3	79.0	90.9	93.5	93.5	96.5	98.4	98.5	99.1	99.1	99.2	99.2	99.4	99.6	99.9
≥ 200	51.1	73.3	79.0	90.9	93.5	93.5	96.5	98.4	98.5	99.1	99.1	99.2	99.2	99.4	99.6	99.9
≥ 100	51.1	73.3	79.0	90.9	93.5	93.5	96.5	98.4	98.5	99.1	99.1	99.2	99.2	99.4	99.6	99.9
≥ 0	51.1	73.3	79.0	90.9	93.5	93.5	96.5	98.4	98.5	99.1	99.1	99.2	99.2	99.4	99.6	99.9

TOTAL NUMBER OF OBSERVATIONS 789

USAF ETAC 1304 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 870 GRAFENWHR AAF DL

73-81

YEARS

APP

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

ALL

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	21.4	30.9	33.3	36.8	38.2	38.4	39.1	39.6	39.6	39.9	39.9	39.9	39.9	39.9	40.1	40.2
≥ 20000	24.6	36.4	38.9	43.0	44.7	44.9	45.8	46.3	46.3	46.6	46.7	46.7	46.7	46.7	46.9	47.2
≥ 18000	25.0	37.0	39.5	43.7	45.4	45.7	46.5	47.0	47.1	47.4	47.4	47.4	47.5	47.6	47.8	47.9
≥ 16000	25.0	37.0	39.5	43.7	45.4	45.7	46.5	47.0	47.1	47.4	47.4	47.4	47.5	47.6	47.8	47.9
≥ 14000	25.1	37.1	39.7	43.9	45.6	45.8	46.6	47.1	47.2	47.5	47.6	47.6	47.6	47.8	47.9	48.1
≥ 12000	25.4	37.6	40.2	44.4	46.2	46.4	47.2	47.7	47.8	48.1	48.1	48.1	48.2	48.3	48.5	48.6
≥ 10000	26.6	39.2	41.7	46.2	48.0	48.3	49.2	49.7	49.8	50.2	50.2	50.3	50.3	50.5	50.6	50.8
≥ 9000	26.7	39.6	42.2	46.8	48.7	48.9	49.9	50.4	50.5	50.9	51.0	51.0	51.1	51.2	51.4	51.6
≥ 8000	29.1	43.1	45.9	50.8	52.9	53.1	54.3	54.9	55.0	55.4	55.5	55.5	55.6	55.7	55.9	56.1
≥ 7000	29.8	44.1	46.9	52.1	54.4	54.5	55.7	56.4	56.6	57.0	57.1	57.1	57.2	57.4	57.5	57.7
≥ 6000	30.3	44.6	47.5	52.7	54.8	55.1	56.3	57.0	57.1	57.6	57.7	57.7	57.8	58.0	58.1	58.3
≥ 5000	31.8	47.1	51.2	55.6	57.8	58.2	59.5	60.3	60.4	60.9	60.9	61.0	61.1	61.3	61.4	61.6
≥ 4500	33.3	49.4	52.6	58.3	60.9	61.3	62.7	63.5	63.6	64.2	64.3	64.3	64.4	64.6	64.8	65.0
≥ 4000	34.9	52.0	55.5	61.7	64.5	64.9	66.4	67.2	67.4	68.0	68.0	68.1	68.2	68.4	68.5	68.7
≥ 3500	36.6	54.8	58.5	65.2	68.2	68.6	70.1	70.9	71.1	71.7	71.7	71.9	71.9	72.2	72.3	72.5
≥ 3000	39.1	58.8	62.6	70.3	73.6	74.0	75.7	76.6	76.8	77.5	77.6	77.7	77.8	78.0	78.1	78.4
≥ 2500	40.7	61.4	65.5	73.8	77.3	77.8	79.6	80.6	80.7	81.5	81.5	81.7	81.7	82.0	82.1	82.3
≥ 2000	41.6	63.4	67.8	77.1	80.9	81.4	83.3	84.5	84.7	85.5	85.6	85.7	85.8	86.0	86.1	86.3
≥ 1800	41.7	63.6	68.0	77.6	81.4	81.9	83.8	85.0	85.2	86.0	86.1	86.2	86.3	86.5	86.6	86.9
≥ 1500	42.4	65.1	69.8	80.4	84.5	85.1	87.2	88.5	88.6	89.5	89.6	89.7	89.8	90.0	90.1	90.3
≥ 1200	42.8	65.8	70.6	82.1	86.4	87.0	89.3	90.7	90.9	91.9	91.9	92.0	92.1	92.3	92.5	92.7
≥ 1000	43.1	66.3	71.2	83.5	88.1	88.8	91.5	93.1	93.3	94.4	94.4	94.6	94.6	94.9	95.0	95.3
≥ 900	43.1	66.4	71.3	83.7	88.4	89.1	91.8	93.5	93.7	94.8	94.9	95.0	95.1	95.3	95.4	95.7
≥ 800	43.1	66.4	71.3	84.1	88.9	89.6	92.5	94.3	94.5	95.7	95.7	95.9	96.0	96.3	96.4	96.7
≥ 700	43.1	66.4	71.3	84.3	89.2	90.0	93.0	94.9	95.1	96.3	96.4	96.6	96.7	96.9	97.1	97.4
≥ 600	43.1	66.4	71.3	84.4	89.4	90.1	93.2	95.2	95.4	96.8	96.9	97.1	97.3	97.6	97.7	98.1
≥ 500	43.1	66.4	71.4	84.5	89.4	90.2	93.4	95.4	95.6	97.1	97.2	97.5	97.8	98.1	98.3	98.6
≥ 400	43.1	66.4	71.4	84.5	89.5	90.3	93.4	95.5	95.7	97.3	97.4	97.8	98.0	98.4	98.5	98.9
≥ 300	43.1	66.4	71.4	84.5	89.5	90.3	93.4	95.5	95.8	97.4	97.6	97.9	98.2	98.6	98.8	99.1
≥ 200	43.1	66.4	71.4	84.5	89.5	90.3	93.5	95.6	95.8	97.5	97.6	98.0	98.3	98.7	99.0	99.5
≥ 100	43.1	66.4	71.4	84.5	89.5	90.3	93.5	95.6	95.9	97.5	97.6	98.0	98.3	98.8	99.1	99.8
≥ 0	43.1	66.4	71.4	84.5	89.5	90.3	93.5	95.6	95.9	97.5	97.7	98.0	98.3	98.8	99.2	100.0

TOTAL NUMBER OF OBSERVATIONS 6350

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6870 GRAFENWOHR AAF DL

73-81

MAY

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

000-0200

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	31.2	41.2	44.1	49.6	50.4	50.5	51.9	52.9	52.9	53.6	53.6	53.7	53.9	55.0	55.4	56.2
≥ 20000	32.7	44.9	48.9	55.2	56.0	56.1	57.5	58.6	58.6	59.4	59.4	59.5	59.6	60.7	61.1	62.0
≥ 18000	32.3	45.3	49.3	56.0	56.7	56.9	58.2	59.4	59.4	60.1	60.1	60.2	60.3	61.5	61.8	62.7
≥ 16000	32.3	45.3	49.3	56.0	56.7	56.9	58.2	59.4	59.4	60.1	60.1	60.2	60.3	61.5	61.8	62.7
≥ 14000	32.3	45.3	49.3	56.0	56.7	56.9	58.2	59.4	59.4	60.1	60.1	60.2	60.3	61.5	61.8	62.7
≥ 12000	33.0	46.0	50.0	56.9	57.7	57.9	59.2	60.3	60.3	61.1	61.1	61.2	61.3	62.5	62.8	63.7
≥ 10000	34.3	47.5	51.5	58.5	59.6	59.7	61.2	62.3	62.3	63.1	63.1	63.2	63.3	64.5	64.8	65.7
≥ 9000	34.9	48.5	52.5	59.7	60.8	61.0	62.5	63.6	63.6	64.3	64.3	64.5	64.6	65.7	66.1	67.0
≥ 8000	38.2	53.1	57.4	64.8	66.0	66.1	67.6	68.7	68.7	69.5	69.5	69.6	69.8	70.9	71.3	72.2
≥ 7000	39.3	54.5	59.2	67.1	68.2	68.3	69.8	70.9	70.9	71.7	71.7	71.8	72.1	73.2	73.6	74.4
≥ 6000	39.8	55.2	60.1	68.0	69.1	69.2	70.7	71.8	71.8	72.6	72.6	72.7	72.9	74.1	74.4	75.3
≥ 5000	40.3	57.0	62.5	70.8	71.9	72.1	73.6	74.7	74.7	75.4	75.4	75.6	75.8	76.9	77.3	78.2
≥ 4500	40.5	57.4	62.8	71.8	73.1	73.3	74.9	76.1	76.1	76.8	76.8	76.9	77.3	78.4	78.8	79.7
≥ 4000	41.5	59.1	65.1	74.4	75.7	75.9	78.3	79.4	79.4	80.2	80.2	80.3	80.7	81.8	82.2	83.0
≥ 3500	41.8	60.2	66.2	75.7	77.1	77.3	79.7	80.8	80.8	81.7	81.7	81.8	82.2	83.3	83.7	84.5
≥ 3000	42.0	61.7	68.2	78.2	79.7	79.9	82.5	83.7	83.7	84.8	84.8	84.9	85.3	86.5	86.9	87.8
≥ 2500	43.4	62.2	68.7	79.4	81.2	81.4	84.0	85.2	85.4	86.5	86.5	86.7	87.0	88.3	88.7	89.5
≥ 2000	43.9	62.8	69.3	80.3	82.3	82.7	85.4	86.5	86.8	87.9	87.9	88.0	88.4	89.7	90.0	90.9
≥ 1800	43.3	63.0	69.8	80.8	82.8	83.2	86.0	87.2	87.4	88.5	88.5	88.7	89.0	90.3	90.6	91.5
≥ 1500	43.8	63.7	70.8	82.3	84.4	84.8	87.9	89.2	89.4	90.8	90.8	90.9	91.3	92.5	92.9	93.8
≥ 1200	44.3	64.8	72.4	84.3	86.5	86.9	90.3	91.5	91.8	93.1	93.1	93.3	93.6	94.9	95.3	96.1
≥ 1000	44.9	65.3	72.9	85.3	87.7	88.0	91.5	92.8	93.0	94.4	94.4	94.5	94.9	96.1	96.5	97.4
≥ 900	44.9	65.3	72.9	85.3	87.7	88.0	91.5	93.0	93.3	94.6	94.6	94.8	95.1	96.4	96.8	97.6
≥ 800	44.9	65.3	72.9	85.5	87.9	88.3	91.8	93.3	93.5	94.9	94.9	95.0	95.4	96.6	97.0	97.9
≥ 700	44.9	65.3	72.9	85.5	87.9	88.3	91.8	93.6	93.9	95.3	95.3	95.4	95.8	97.0	97.4	98.3
≥ 600	44.9	65.3	72.9	85.8	88.5	88.9	92.4	94.3	94.5	95.9	95.9	96.0	96.4	97.6	98.0	98.9
≥ 500	44.9	65.3	72.9	85.8	88.5	88.9	92.4	94.4	94.6	96.0	96.0	96.1	96.5	97.8	98.1	99.0
≥ 400	44.9	65.5	73.1	86.0	88.9	89.3	92.8	94.8	95.0	96.4	96.4	96.5	96.9	98.1	98.5	99.5
≥ 300	44.9	65.5	73.1	86.0	88.9	89.3	92.8	94.9	95.1	96.5	96.5	96.6	97.0	98.3	98.6	99.6
≥ 200	44.9	65.5	73.1	86.0	88.9	89.3	92.8	94.9	95.1	96.5	96.5	96.6	97.0	98.3	98.6	99.9
≥ 100	44.9	65.5	73.1	86.0	88.9	89.3	92.8	94.9	95.1	96.5	96.5	96.6	97.0	98.3	98.6	99.9
≥ 0	45.0	65.6	73.2	86.2	89.0	89.4	92.9	95.0	95.3	96.6	96.6	96.8	97.1	98.4	98.8	100.0

TOTAL NUMBER OF OBSERVATIONS 822

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 8700 GRAFENWHP AAF DL

73-81

MAY

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

130-0500

CEILING FEET	VISIBILITY STATUTE MILES														
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.15	≥0.1	≥0.05	≥0
NO CEILING	16.1	23.6	28.0	33.3	35.6	35.8	37.7	40.4	40.4	41.3	41.5	42.1	42.4	43.6	44.3
≥ 20000	17.7	25.9	30.5	36.8	39.3	39.7	41.6	44.3	44.5	45.3	45.6	46.2	46.4	47.9	48.8
≥ 18000	17.1	26.0	30.8	37.3	39.8	40.1	42.1	44.6	45.0	45.8	46.1	46.7	46.9	48.4	49.3
≥ 16000	17.1	26.0	30.8	37.3	39.8	40.1	42.1	44.6	45.0	45.8	46.1	46.7	46.9	48.4	49.3
≥ 14000	17.1	26.0	30.8	37.3	39.8	40.1	42.1	44.6	45.0	45.8	46.1	46.7	46.9	48.4	49.3
≥ 12000	17.2	26.1	31.1	37.7	40.1	40.5	42.5	45.2	45.3	46.2	46.4	47.2	47.3	48.8	49.6
≥ 10000	19.2	29.3	34.6	41.7	44.3	44.7	46.9	49.6	49.8	50.9	51.1	51.7	52.1	53.6	54.4
≥ 9000	19.6	30.0	35.6	43.0	45.6	45.9	48.3	51.0	51.1	52.2	52.5	53.1	53.4	54.9	55.8
≥ 8000	21.9	34.9	41.3	49.1	51.7	52.1	54.8	57.8	57.9	59.4	59.6	60.2	60.6	62.3	63.2
≥ 7000	22.3	35.5	42.2	50.6	53.2	53.6	56.3	59.4	59.5	61.1	61.3	61.9	62.4	64.2	65.0
≥ 6000	23.3	36.6	43.3	51.8	54.4	54.8	57.6	60.7	60.8	62.4	62.7	63.3	63.8	65.5	66.4
≥ 5000	24.8	39.4	46.4	55.8	58.4	58.7	61.6	64.7	64.8	66.5	66.7	67.4	67.9	69.6	70.4
≥ 4500	24.9	39.8	47.2	57.3	60.2	60.5	63.4	66.6	66.7	68.6	68.8	69.5	70.0	71.7	72.5
≥ 4000	25.2	41.1	48.6	60.1	63.2	63.7	66.9	70.3	70.4	72.5	72.9	73.5	74.0	75.7	76.6
≥ 3500	25.3	42.1	49.6	61.1	64.3	64.8	68.0	71.4	71.6	73.6	74.0	74.6	75.1	76.9	77.7
≥ 3000	27.5	44.3	52.1	63.9	67.2	67.7	71.2	74.6	74.8	76.8	77.2	77.8	78.3	80.0	80.9
≥ 2500	27.7	44.8	52.6	65.6	69.0	69.5	72.9	76.6	76.7	76.8	79.2	79.8	80.3	82.0	82.9
≥ 2000	27.7	45.1	53.0	66.4	70.1	70.6	74.1	77.8	78.0	80.0	80.4	81.0	81.5	83.3	84.1
≥ 1800	27.7	45.2	53.2	66.7	70.6	71.1	74.8	78.4	78.6	80.7	81.0	81.7	82.1	83.9	84.7
≥ 1500	27.8	45.4	53.9	68.2	72.0	72.5	76.6	80.4	80.7	83.0	83.4	84.0	84.5	86.2	87.1
≥ 1200	29.4	46.3	54.9	69.3	73.2	73.6	78.3	82.1	82.4	84.7	85.1	85.8	86.3	88.1	88.9
≥ 1000	28.7	46.7	55.3	70.3	74.5	75.0	79.9	83.7	84.0	86.3	86.7	87.4	87.9	89.7	90.5
≥ 900	28.7	46.9	55.5	70.6	74.9	75.6	80.7	84.6	85.0	87.3	87.7	88.4	88.9	90.6	91.5
≥ 800	28.7	46.9	55.5	71.2	75.6	76.4	81.4	85.3	85.7	88.1	88.4	89.2	89.7	91.4	92.2
≥ 700	28.7	46.9	55.5	71.2	75.6	76.4	81.4	85.6	86.0	88.4	88.8	89.5	90.0	91.7	92.6
≥ 600	28.7	46.9	55.7	71.4	76.0	76.7	81.9	86.1	86.5	88.9	89.3	90.0	90.5	92.2	93.1
≥ 500	28.7	46.9	55.7	71.4	76.0	76.7	82.1	86.6	86.9	89.4	89.8	90.5	91.0	92.7	93.6
≥ 400	28.7	46.9	55.7	71.4	76.0	76.8	82.3	86.8	87.2	90.0	90.4	91.1	91.6	93.3	94.2
≥ 300	28.7	46.9	55.7	71.4	76.0	76.8	82.3	86.9	87.4	90.3	90.6	91.4	91.9	93.7	94.6
≥ 200	28.7	46.9	55.7	71.4	76.0	76.8	82.3	86.9	87.4	90.3	90.6	91.4	91.9	93.7	94.7
≥ 100	28.7	46.9	55.7	71.4	76.0	76.8	82.3	86.9	87.4	90.3	90.6	91.4	92.0	93.8	95.2

TOTAL NUMBER OF OBSERVATIONS 612

USAF ETAC FORM 10-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

16873 GRAFENWOHR AAF DL

73-81

MAY

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

3600-0800

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.15	≥0.1	≥0.05	≥0.025	≥0.01
NO CEILING	15.7	21.3	23.9	29.5	33.0	33.8	36.0	36.7	37.0	37.4	38.0	38.7	38.9	39.4	40.5	41.1
≥20000	16.8	26.0	28.9	34.9	39.0	39.8	42.3	43.4	43.7	44.1	44.9	45.7	46.2	46.5	47.7	48.8
IV 18000	17.2	26.5	29.4	36.2	40.4	41.1	43.7	44.9	45.1	45.7	46.5	47.3	47.6	48.0	49.3	50.4
IV 16000	17.2	26.5	29.4	36.2	40.4	41.1	43.7	44.9	45.1	45.7	46.5	47.3	47.6	48.0	49.3	50.4
IV 14000	17.2	26.5	29.4	36.2	40.4	41.1	43.7	44.9	45.1	45.7	46.5	47.3	47.6	48.0	49.3	50.4
IV 12000	17.2	26.5	29.4	36.2	40.4	41.1	43.7	44.9	45.1	45.7	46.5	47.3	47.6	48.0	49.3	50.4
IV 10000	18.4	28.8	32.4	39.6	44.0	44.8	47.4	48.7	48.9	49.6	50.4	51.3	51.6	52.1	53.3	54.4
IV 9000	18.4	29.1	32.8	40.0	44.4	45.1	47.9	49.3	49.5	50.2	51.0	52.0	52.2	52.7	53.9	55.0
IV 8000	20.9	33.7	38.4	46.6	51.1	51.8	55.0	56.5	56.7	57.7	58.4	59.4	59.8	60.4	61.6	62.7
IV 7000	21.3	34.3	39.4	47.8	52.3	53.0	56.3	57.8	58.0	59.4	60.1	61.1	61.5	62.1	63.3	64.4
IV 6000	21.8	35.0	40.1	48.7	53.2	53.9	57.2	58.7	58.9	60.2	61.0	62.0	62.3	62.9	64.1	65.2
IV 5000	22.6	37.2	42.3	51.0	55.5	56.2	59.5	61.0	61.2	62.6	63.3	64.3	64.6	65.2	66.5	67.6
IV 4500	22.7	37.4	43.0	52.2	56.8	57.7	61.0	62.8	63.0	64.5	65.2	66.3	66.7	67.3	68.5	69.6
IV 4000	23.8	39.4	45.2	55.2	60.1	61.0	64.3	66.5	66.7	68.4	69.1	70.2	70.6	71.3	72.6	73.7
IV 3500	24.8	41.0	47.1	57.2	62.4	63.3	66.6	68.8	69.1	70.9	71.6	72.7	73.0	73.8	75.0	76.1
IV 3000	25.2	42.3	48.5	58.9	64.3	65.1	68.7	70.9	71.2	72.9	73.7	74.8	75.1	75.9	77.2	78.3
IV 2500	25.5	42.8	49.4	60.1	65.6	66.6	70.4	72.6	72.9	74.9	75.6	76.7	77.1	77.8	79.1	80.2
IV 2000	25.7	43.4	50.4	61.6	67.1	68.0	72.0	74.1	74.5	76.5	77.2	78.3	78.7	79.4	80.7	81.8
IV 1800	25.9	43.5	50.5	61.7	67.2	68.2	72.1	74.3	74.6	76.6	77.3	78.4	78.8	79.5	80.9	82.0
IV 1500	26.6	45.1	52.2	64.6	70.6	71.6	75.9	78.3	78.7	80.6	81.3	82.4	82.8	83.5	84.9	86.0
IV 1200	26.8	46.6	53.8	66.7	72.8	73.8	79.1	81.7	82.1	84.0	84.8	85.9	86.2	87.0	88.3	89.4
IV 1000	27.2	47.4	54.6	68.7	75.1	76.1	81.6	84.3	84.6	86.6	87.3	88.4	88.8	89.5	90.9	92.0
IV 900	27.2	47.6	54.8	68.9	75.4	76.3	81.8	84.6	85.0	87.0	87.7	88.8	89.1	89.9	91.2	92.3
IV 800	27.2	47.6	54.8	69.6	76.1	77.1	82.6	85.6	86.0	88.0	88.8	89.9	90.2	91.0	92.3	93.5
IV 700	27.2	47.6	54.8	69.9	76.7	77.7	83.4	86.7	87.1	89.4	90.1	91.2	91.6	92.3	93.7	94.9
IV 600	27.2	47.6	54.8	70.0	77.2	78.2	84.3	87.7	88.0	90.4	91.1	92.2	92.6	93.3	94.6	95.9
IV 500	27.2	47.6	54.8	70.0	77.2	78.2	84.8	88.3	88.8	91.1	91.8	92.9	93.3	94.1	95.5	96.7
IV 400	27.2	47.6	54.8	70.0	77.2	78.2	84.8	88.8	89.3	91.7	92.4	93.5	93.9	94.8	96.2	97.6
IV 300	27.2	47.6	54.8	70.0	77.2	78.2	84.8	88.8	89.3	91.8	92.6	93.7	94.0	95.1	96.6	98.3
IV 200	27.2	47.6	54.8	70.0	77.2	78.2	84.8	88.8	89.3	91.8	92.8	93.9	94.3	95.6	97.1	99.1
IV 100	27.2	47.6	54.8	70.0	77.2	78.2	84.8	88.8	89.3	91.8	92.8	93.9	94.3	95.6	97.1	99.1
IV 0	27.2	47.6	54.8	70.0	77.2	78.2	84.8	88.8	89.3	91.8	92.8	93.9	94.3	95.6	97.2	100.0

TOTAL NUMBER OF OBSERVATIONS 827

USAF ETAC FORM 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 6673 GRAFENWOHR AAF, DL YEAR 73-81 MONTH MAY
PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS) 0000-1100

CEILING FEET	VISIBILITY, STATUTE MILES																
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.3	≥0.2	≥0.1	≥0.05	≥0.03	≥0.02	≥0.01
NO CEILING	27.9	37.5	39.4	41.5	42.1	42.1	42.1	42.2	42.2	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4
≥20000	31.2	43.3	44.2	48.7	48.6	48.6	48.7	48.9	48.9	49.0	49.0	49.0	49.0	49.0	49.0	49.0	49.0
≥18000	31.6	44.3	45.1	49.5	50.1	50.1	50.2	50.3	50.3	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4
≥16000	31.6	44.8	45.6	49.9	50.5	50.5	50.7	50.8	50.8	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9
≥14000	31.8	45.0	45.8	50.2	50.8	50.8	50.9	51.0	51.0	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1
≥12000	32.1	45.4	46.2	50.8	51.4	51.4	51.5	51.6	51.6	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7
≥10000	33.6	47.2	48.3	53.3	53.9	53.9	54.0	54.2	54.2	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3
≥9000	33.9	48.1	49.2	54.3	55.0	55.0	55.1	55.2	55.2	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4
≥8000	36.2	52.8	54.4	60.4	61.3	61.3	61.6	61.9	61.9	62.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0
≥7000	36.3	53.7	55.5	61.9	63.2	63.2	63.5	63.8	63.8	63.9	63.9	63.9	63.9	63.9	63.9	63.9	63.9
≥6000	37.1	54.7	55.8	62.2	63.5	63.5	63.9	64.1	64.1	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3
≥5000	37.4	54.8	56.7	63.2	64.6	64.6	65.0	65.6	65.6	65.7	65.7	65.7	65.7	65.7	65.7	65.7	65.7
≥4500	38.7	55.8	57.8	65.0	66.4	66.4	66.8	67.4	67.4	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5
≥4000	39.7	57.4	59.3	66.7	68.2	68.2	68.6	69.2	69.2	69.3	69.3	69.3	69.3	69.3	69.3	69.3	69.3
≥3500	41.6	60.5	62.6	70.2	71.7	71.7	72.1	72.7	72.7	72.8	72.8	72.8	72.8	72.8	72.8	72.8	72.8
≥3000	46.1	66.7	68.7	76.9	78.6	78.6	78.9	79.5	79.5	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7
≥2500	48.5	71.2	72.2	80.9	82.6	82.6	83.0	83.6	83.6	83.8	83.8	83.8	83.8	83.8	83.8	83.8	83.8
≥2000	49.3	72.2	74.2	83.6	85.7	85.7	86.2	86.8	86.8	86.9	86.9	86.9	86.9	86.9	86.9	86.9	86.9
≥1800	50.1	73.0	75.1	84.7	86.8	86.8	87.2	87.8	87.8	88.0	88.0	88.0	88.0	88.0	88.0	88.0	88.0
≥1600	52.3	76.4	78.6	88.6	90.7	90.7	91.2	91.8	91.8	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9
≥1400	52.7	77.7	80.3	91.5	93.6	93.6	94.5	95.2	95.2	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3
≥1200	52.7	78.1	80.7	92.7	94.8	94.8	95.2	95.9	96.6	96.6	96.8	96.8	96.8	96.8	96.8	96.8	96.8
≥1000	52.7	78.1	81.7	92.9	95.2	95.5	96.3	97.0	97.0	97.1	97.1	97.1	97.1	97.1	97.1	97.1	97.1
≥900	52.7	78.1	80.7	93.5	95.8	96.1	97.0	97.8	97.8	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0
≥800	52.9	78.2	80.9	93.9	96.5	96.9	97.8	98.7	98.7	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
≥700	52.8	78.2	80.9	94.0	97.0	97.4	98.3	99.2	99.2	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
≥600	52.8	78.2	80.9	94.0	97.1	97.5	98.6	99.4	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥500	52.8	78.2	80.9	94.0	97.1	97.5	98.7	99.5	99.5	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥400	52.8	78.2	80.9	94.0	97.1	97.5	98.7	99.5	99.5	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥300	52.8	78.2	80.9	94.0	97.1	97.5	98.7	99.5	99.5	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥200	52.8	78.2	80.9	94.0	97.1	97.5	98.7	99.5	99.5	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥100	52.8	78.2	80.9	94.0	97.1	97.5	98.7	99.5	99.5	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥0	52.8	78.3	81.7	94.1	97.2	97.6	98.8	99.6	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 871

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 6870 SPAFENWHR AAF DL STATION NAME 73-81 YEAR MAY
PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS) 1227-1400

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥2	≥2	≥2	≥2	≥2	≥2	≥2	≥2	≥2
NO CEILING	23.1	35.2	35.6	36.6	34.6	36.6	36.6	36.6	36.6	36.6	36.6	36.6	36.6	36.6	36.6	36.6
2 20000	32.9	42.1	42.5	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8	43.8
2 18000	33.3	43.5	43.9	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2	45.2
2 16000	33.3	43.9	44.3	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6
2 14000	33.9	44.3	44.6	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
2 12000	34.4	45.1	45.5	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9	46.9
2 10000	37.2	48.6	49.5	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9	50.9
2 9000	37.4	48.9	49.7	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1
2 8000	40.3	53.3	54.2	56.1	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2	56.2
2 7000	40.9	54.3	55.1	57.1	57.2	57.2	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
2 6000	41.5	55.2	56.1	58.0	58.1	58.1	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4
2 5000	43.2	56.3	59.2	61.3	61.4	61.4	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6	61.6
2 4500	44.6	60.1	61.0	63.3	63.4	63.4	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7	63.7
2 4000	49.3	66.7	69.7	70.4	70.9	70.9	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
2 3500	54.2	72.4	73.7	76.7	77.2	77.2	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4	77.4
2 3000	60.9	80.9	82.4	85.6	86.1	86.1	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5	86.5
2 2500	63.3	85.2	86.7	90.0	90.7	90.7	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1	91.1
2 2000	64.3	87.0	89.1	92.9	93.6	93.6	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0	94.0
2 1800	64.3	87.3	89.5	93.2	94.0	94.0	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3
2 1600	65.4	88.9	91.3	95.5	96.3	96.3	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6	96.6
2 1400	65.7	90.3	92.9	97.6	98.4	98.4	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
2 1200	65.7	91.5	93.0	97.8	98.9	98.9	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
2 1000	65.9	92.6	93.1	97.9	99.0	99.0	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
2 900	65.9	92.6	93.1	98.2	99.3	99.3	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
2 800	65.9	92.6	93.1	98.3	99.6	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2 700	65.9	92.6	93.1	98.3	99.6	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2 600	65.9	92.6	93.1	98.3	99.6	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2 500	65.9	92.6	93.1	98.3	99.6	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2 400	65.9	92.6	93.1	98.3	99.6	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2 300	65.9	92.6	93.1	98.3	99.6	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2 200	65.9	92.6	93.1	98.3	99.6	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2 100	65.9	92.6	93.1	98.3	99.6	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2 50	65.9	92.6	93.1	98.3	99.6	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2 0	65.9	92.6	93.1	98.3	99.6	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 429

AD-A122 717

GRAFENWOHR AAF GERMANY (WEST) REVISED UNIFORM SUMMARY
OF SURFACE WEATHER..(U) AIR FORCE ENVIRONMENTAL
TECHNICAL APPLICATIONS CENTER SCOTT A.. 03 SEP 82

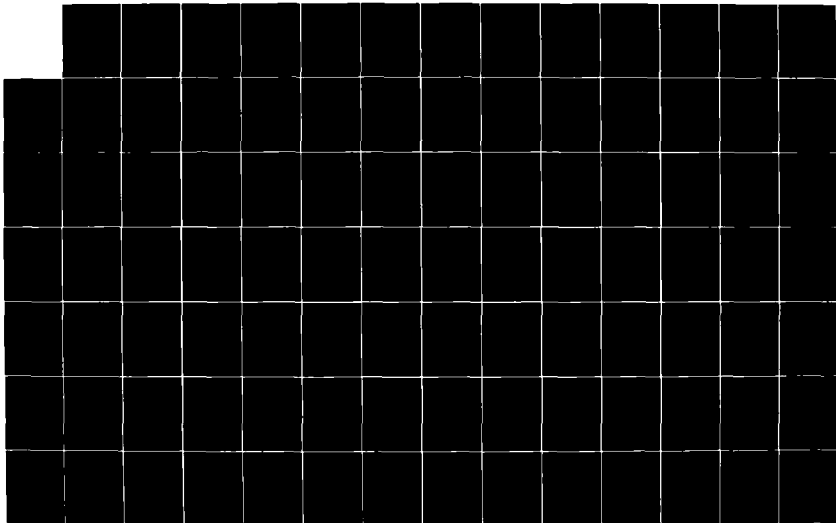
3/5

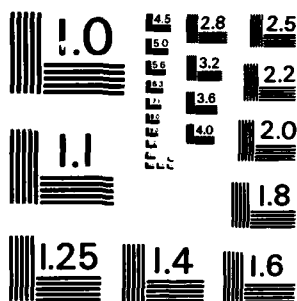
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USAPETAC/DS-82/082 SBT-AD-8890 210

P/G 4/2

NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

GLOBAL CLIMATOLOGY BRANCH
AFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION: EE7C GRAFENWOHR AAF DL

73-81

MAY

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1530-1700

CEILING FEET	VISIBILITY, STATUTE MILES																
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.75	≥0.5	≥0.25	≥0.15	≥0.1	≥0.05	≥0.025	≥0.01
NO CEILING	27.6	35.7	35.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9	36.9
≥ 20000	35.1	46.1	46.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3	47.3
≥ 8000	35.7	46.8	47.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0
≥ 6000	35.7	46.8	47.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0
≥ 4000	36.2	47.5	47.8	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7	48.7
≥ 3000	37.0	48.9	49.1	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4
≥ 2000	39.6	51.6	52.2	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6
≥ 1500	39.9	52.1	53.0	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3	54.3
≥ 1000	43.7	57.4	58.5	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2
≥ 800	44.8	59.6	60.7	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5	62.5
≥ 700	45.4	60.4	61.5	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3	63.3
≥ 600	47.7	63.2	64.3	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1
≥ 500	47.8	64.4	65.6	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4	67.4
≥ 4500	51.3	69.2	70.9	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
≥ 4000	56.9	76.1	78.4	81.2	81.2	81.2	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3
≥ 3500	63.3	84.8	87.5	91.1	91.1	91.1	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2	91.2
≥ 3000	64.7	87.8	90.5	94.5	94.5	94.5	94.6	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7	94.7
≥ 2500	65.4	89.1	92.0	96.0	96.0	96.0	96.1	96.1	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3
≥ 2000	65.5	89.3	92.2	96.1	96.3	96.3	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4
≥ 1500	66.1	90.1	93.6	98.4	98.6	98.6	98.6	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7	98.7
≥ 1200	66.5	90.8	94.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 1000	66.5	90.8	94.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 900	66.5	90.8	94.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 800	66.5	90.8	94.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 700	66.5	90.8	94.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 600	66.5	90.8	94.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 500	66.5	90.8	94.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 400	66.5	90.8	94.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 300	66.5	90.8	94.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 200	66.5	90.8	94.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 100	66.5	90.8	94.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 0	66.5	90.8	94.6	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NUMBER OF OBSERVATIONS 829

USAF ETAC FORM 10-64 10-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6870 GRAFENWOHR AAF DL
STATION NAME

73-81

MAY

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1870-2000

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1.4	≥1	≥.8	≥.6	≥.5	≥.4	≥.3	≥.2
NO CEILING	53.1	47.6	41.2	42.0	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2
≥ 20000	42.5	52.6	53.2	54.3	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.4
≥ 18000	43.3	53.8	54.7	55.8	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9
≥ 16000	43.3	53.8	54.7	55.8	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9	55.9
≥ 14000	43.4	54.2	55.7	56.1	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3
≥ 12000	45.0	56.1	57.1	58.5	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7
≥ 10000	48.3	59.9	61.3	63.0	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2	63.2
≥ 9000	50.5	62.6	64.7	65.7	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9
≥ 8000	53.4	66.5	68.5	70.8	71.1	71.1	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
≥ 7000	54.8	68.4	70.5	72.8	73.0	73.0	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4
≥ 6000	55.6	69.2	71.3	73.7	73.9	73.9	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3
≥ 5000	57.7	72.5	74.8	77.3	77.6	77.6	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9	77.9
≥ 4500	58.5	74.1	76.5	79.0	79.3	79.3	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8	79.8
≥ 4000	61.2	77.9	81.4	83.0	83.2	83.2	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7	83.7
≥ 3500	62.6	80.4	83.7	86.0	86.3	86.3	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8	86.8
≥ 3000	65.3	84.4	87.4	90.8	91.2	91.3	91.8	91.8	91.9	91.9	91.9	91.9	91.9	91.9	91.9	91.9
≥ 2500	65.6	85.3	88.5	92.3	92.6	92.8	93.3	93.3	93.4	93.4	93.4	93.4	93.4	93.4	93.4	93.4
≥ 2000	66.5	86.9	90.1	94.0	94.4	94.5	95.2	95.2	95.3	95.5	95.5	95.5	95.5	95.5	95.5	95.5
≥ 1800	66.8	87.1	90.6	94.9	95.2	95.3	96.1	96.1	96.2	96.3	96.3	96.3	96.3	96.3	96.3	96.3
≥ 1600	67.1	87.7	91.3	96.0	96.6	96.7	97.5	97.5	97.7	97.8	97.8	97.8	97.8	97.8	97.8	97.8
≥ 1400	67.4	88.1	91.8	97.4	98.2	98.3	99.1	99.1	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4
≥ 1200	67.4	88.5	92.3	98.0	98.8	98.9	99.8	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 1000	67.4	88.5	92.3	98.0	98.8	98.9	99.8	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 900	67.4	88.5	92.3	98.0	98.8	98.9	99.8	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 800	67.4	88.5	92.3	98.0	98.8	98.9	99.8	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 700	67.4	88.5	92.3	98.0	98.8	98.9	99.8	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 600	67.4	88.5	92.3	98.0	98.8	98.9	99.8	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 500	67.4	88.5	92.3	98.0	98.8	98.9	99.8	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 400	67.4	88.5	92.3	98.0	98.8	98.9	99.8	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 300	67.4	88.5	92.3	98.0	98.8	98.9	99.8	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 200	67.4	88.5	92.3	98.0	98.8	98.9	99.8	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 100	67.4	88.5	92.3	98.0	98.8	98.9	99.8	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	67.4	88.5	92.3	98.0	98.8	98.9	99.8	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 816

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1970 GRAFENWOHR AAF DL

73-81

MAY

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

2100-2300

CEILING FEET	VISIBILITY, STATUTE MILES															
	≥10	≥9	≥8	≥7	≥6	≥5	≥4	≥3	≥2	≥1	≥1/2	≥1/4	≥1/8	≥1/16	≥1/32	≥1/64
NO CEILING	35.4	47.7	49.7	51.3	53.4	53.4	53.9	54.4	54.4	54.6	54.8	54.9	54.9	55.0	55.0	55.1
≥20000	39.7	54.7	57.7	61.1	61.3	61.3	61.9	62.4	62.4	62.7	62.8	62.9	62.9	63.0	63.0	63.2
≥18000	47.7	54.8	58.7	62.3	62.5	62.5	63.2	63.7	63.7	63.9	64.0	64.2	64.2	64.3	64.3	64.4
≥16000	47.7	54.8	58.7	62.3	62.5	62.5	63.2	63.7	63.7	63.9	64.0	64.2	64.2	64.3	64.3	64.4
≥14000	47.2	54.9	58.1	62.5	62.8	62.8	63.4	63.9	63.9	64.2	64.3	64.4	64.4	64.5	64.5	64.6
≥12000	41.7	56.6	67.0	64.4	64.6	64.6	65.3	65.8	65.8	66.0	66.1	66.3	66.3	66.4	66.4	66.5
≥10000	42.9	58.5	62.1	66.9	67.1	67.1	67.9	68.4	68.4	68.6	68.7	68.9	68.9	69.0	69.0	69.1
≥9000	44.1	60.2	63.9	68.6	63.9	68.9	69.6	70.1	70.1	70.3	70.5	70.6	70.6	70.7	70.7	70.8
≥8000	46.4	64.3	68.1	73.7	73.9	73.9	74.7	75.3	75.3	75.5	75.6	75.8	75.8	75.9	75.9	76.0
≥7000	47.3	65.8	69.6	75.2	75.4	75.4	76.5	77.1	77.1	77.4	77.5	77.6	77.6	77.8	77.8	77.9
≥6000	47.8	66.3	70.1	75.6	75.9	75.9	77.0	77.6	77.6	77.9	78.0	78.1	78.1	78.2	78.2	78.4
≥5000	49.8	69.2	73.7	79.2	79.5	79.5	80.6	81.3	81.3	81.6	81.7	81.8	81.8	82.0	82.0	82.1
≥4500	50.3	70.3	74.9	80.6	80.8	80.8	82.2	83.1	83.1	83.3	83.4	83.6	83.6	83.7	83.7	83.8
≥4000	51.7	72.3	77.4	83.1	83.3	83.3	84.8	85.7	85.7	85.9	86.0	86.2	86.2	86.3	86.3	86.4
≥3500	52.7	73.4	79.5	84.3	84.5	84.5	86.0	86.9	86.9	87.1	87.3	87.4	87.4	87.5	87.5	87.6
≥3000	54.3	76.0	81.5	87.5	87.9	87.9	89.4	90.2	90.2	90.6	90.7	90.9	90.9	91.0	91.0	91.1
≥2500	54.6	76.4	82.0	88.6	89.1	89.1	90.6	91.5	91.5	91.8	92.0	92.1	92.1	92.2	92.2	92.3
≥2000	55.5	77.3	82.8	89.7	90.4	90.4	92.3	93.2	93.2	93.7	93.8	93.9	93.9	94.1	94.1	94.2
≥1800	55.5	77.8	83.9	90.9	91.5	91.5	93.4	94.3	94.3	94.8	94.9	95.1	95.1	95.2	95.2	95.3
≥1600	55.6	77.9	84.1	91.5	92.1	92.1	94.1	94.9	94.9	95.4	95.6	95.7	95.7	95.8	95.8	95.9
≥1400	56.0	78.5	84.8	93.0	93.6	93.6	95.8	96.7	96.7	97.2	97.3	97.4	97.4	97.5	97.5	97.7
≥1200	56.7	78.6	84.9	93.7	94.4	94.4	96.8	97.7	97.7	98.1	98.3	98.4	98.4	98.5	98.5	98.6
≥1000	56.7	78.6	84.9	93.9	94.7	94.7	97.0	97.9	97.9	98.4	98.5	98.6	98.6	98.8	98.8	98.9
≥900	56.7	78.6	84.9	94.2	95.1	95.1	97.4	98.3	98.3	98.8	98.9	99.0	99.0	99.1	99.1	99.3
≥800	56.7	78.6	84.9	94.2	95.1	95.1	97.4	98.3	98.3	98.8	98.9	99.0	99.0	99.1	99.1	99.3
≥700	56.7	78.6	84.9	94.2	95.1	95.1	97.4	98.3	98.3	98.8	98.9	99.0	99.0	99.1	99.1	99.3
≥600	56.7	78.6	84.9	94.2	95.1	95.1	97.4	98.3	98.3	98.8	98.9	99.0	99.0	99.1	99.1	99.3
≥500	56.7	78.6	84.9	94.2	95.1	95.1	97.4	98.3	98.3	98.8	98.9	99.0	99.0	99.1	99.1	99.3
≥400	56.7	78.6	84.9	94.2	95.1	95.1	97.4	98.3	98.3	98.8	98.9	99.0	99.0	99.1	99.1	99.3
≥300	56.7	78.6	84.9	94.2	95.1	95.1	97.4	98.3	98.3	98.8	98.9	99.0	99.0	99.1	99.1	99.3
≥200	56.7	78.6	84.9	94.2	95.1	95.1	97.4	98.3	98.3	98.8	98.9	99.0	99.0	99.1	99.1	99.3
≥100	56.7	78.6	84.9	94.2	95.1	95.1	97.4	98.3	98.3	98.8	98.9	99.0	99.0	99.1	99.1	99.3
≥	56.7	78.6	84.9	94.2	95.1	95.1	97.4	98.3	98.3	98.8	98.9	99.0	99.0	99.1	99.1	99.3

TOTAL NUMBER OF OBSERVATIONS 609

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6870 STATION GRAFENWOHR AAF DL

73-81

MAY

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

ALL

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.75	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01
NO CEILING	26.6	35.2	37.1	40.3	41.2	41.4	42.1	42.7	43.1	43.2	43.4	43.4	43.5	44.1	44.5	
≥ 20000	30.9	41.3	43.9	47.6	48.7	48.8	49.6	50.3	50.4	50.7	50.8	51.0	51.1	51.5	51.8	52.3
≥ 18000	31.4	42.6	44.7	48.7	49.8	49.9	50.8	51.5	51.5	51.6	52.0	52.2	52.3	52.7	53.0	53.5
≥ 16000	31.4	42.7	44.9	48.9	49.9	50.0	50.9	51.6	51.6	51.9	52.1	52.3	52.4	52.8	53.1	53.6
≥ 14000	31.5	42.9	45.1	49.1	50.1	50.3	51.1	51.8	51.9	52.2	52.3	52.5	52.6	53.0	53.3	53.8
≥ 12000	32.2	43.8	46.3	50.2	51.3	51.4	52.2	52.9	53.0	53.3	53.5	53.7	53.7	54.1	54.4	55.0
≥ 10000	34.2	46.4	49.7	53.4	54.6	54.7	55.6	56.3	56.4	56.7	56.9	57.1	57.2	57.6	57.9	58.4
≥ 9000	34.9	47.4	50.0	54.6	55.7	55.9	56.8	57.5	57.6	57.9	58.1	58.3	58.4	58.8	59.1	59.6
≥ 8000	37.6	52.0	55.1	60.2	61.4	61.5	62.6	63.4	63.5	63.9	64.0	64.3	64.4	64.8	65.1	65.7
≥ 7000	38.4	53.2	56.5	61.8	63.1	63.2	64.4	65.2	65.3	65.8	65.9	66.1	66.3	66.7	67.0	67.6
≥ 6000	39.0	54.0	57.3	62.6	63.9	64.1	65.3	66.1	66.1	66.6	66.8	67.0	67.1	67.6	67.9	68.4
≥ 5000	40.3	56.4	60.0	65.5	66.8	67.0	68.2	69.1	69.1	69.6	69.8	70.0	70.1	70.6	70.9	71.4
≥ 4500	40.9	57.4	61.1	67.0	68.4	68.6	69.9	70.8	70.8	71.4	71.5	71.8	71.9	72.4	72.7	73.2
≥ 4000	42.9	60.4	64.4	70.7	72.2	72.4	73.8	74.8	74.9	75.5	75.6	75.9	76.0	76.5	76.8	77.3
≥ 3500	45.0	63.3	67.4	74.0	75.6	75.8	77.2	78.2	78.3	78.9	79.1	79.3	79.5	79.9	80.2	80.8
≥ 3000	48.2	67.7	72.1	79.1	80.8	81.0	82.5	83.6	83.6	84.3	84.5	84.7	84.9	85.3	85.6	86.2
≥ 2500	49.2	69.4	73.9	81.5	83.2	83.4	85.0	86.1	86.2	86.9	87.0	87.3	87.4	87.9	88.2	88.8
≥ 2000	49.3	70.6	75.2	83.1	85.0	85.2	87.0	88.0	88.1	88.9	89.0	89.2	89.4	89.9	90.2	90.7
≥ 1800	50.0	70.9	75.7	83.7	85.6	85.8	87.6	88.6	88.7	89.5	89.6	89.9	90.0	90.5	90.8	91.4
≥ 1600	50.6	72.7	77.3	85.7	87.7	88.0	89.8	91.0	91.1	91.9	92.0	92.3	92.4	92.9	93.2	93.8
≥ 1400	51.1	73.0	78.2	87.5	89.5	89.8	92.0	93.1	93.3	94.1	94.2	94.5	94.6	95.1	95.4	96.0
≥ 1200	51.2	73.3	78.6	88.3	90.6	90.9	93.1	94.3	94.4	95.2	95.4	95.6	95.8	96.2	96.6	97.1
≥ 1000	51.2	73.4	78.7	88.5	90.7	91.1	93.3	94.6	94.7	95.5	95.6	95.9	96.1	96.5	96.9	97.4
≥ 900	51.2	73.4	78.7	88.8	91.1	91.4	93.7	95.0	95.1	95.9	96.1	96.4	96.5	97.0	97.3	97.9
≥ 800	51.2	73.4	78.7	88.9	91.3	91.6	94.0	95.4	95.5	96.4	96.5	96.8	96.9	97.4	97.7	98.3
≥ 700	51.3	73.4	78.7	89.0	91.6	91.9	94.3	95.7	95.9	96.7	96.9	97.1	97.3	97.8	98.1	98.7
≥ 600	51.3	73.4	78.7	89.0	91.6	91.9	94.3	95.7	95.9	96.7	96.9	97.1	97.3	97.8	98.1	98.7
≥ 500	51.3	73.5	78.8	89.1	91.7	92.0	94.6	96.1	96.3	97.2	97.3	97.6	97.8	98.2	98.6	99.2
≥ 400	51.3	73.5	78.8	89.1	91.7	92.0	94.6	96.1	96.3	97.2	97.3	97.6	97.8	98.2	98.6	99.2
≥ 300	51.3	73.5	78.8	89.1	91.7	92.0	94.6	96.1	96.3	97.3	97.4	97.7	97.8	98.4	98.7	99.4
≥ 200	51.3	73.5	78.8	89.1	91.7	92.0	94.6	96.1	96.3	97.3	97.4	97.7	97.9	98.4	98.8	99.6
≥ 100	51.3	73.5	78.8	89.1	91.7	92.0	94.6	96.1	96.3	97.3	97.4	97.7	97.9	98.4	98.8	99.9
≥ 0	51.3	73.5	78.8	89.1	91.7	92.0	94.6	96.2	96.3	97.3	97.5	97.7	97.9	98.5	98.9	100.0

TOTAL NUMBER OF OBSERVATIONS 6548

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 687 GRAFENWOHR AAF DL

73-81

YEAR

MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

0000-0200

CEILING FEET	VISIBILITY - STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	28.9	41.1	44.1	49.3	50.8	50.9	52.3	52.5	52.7	53.5	53.5	53.9	53.9	54.8	55.7	55.5
IV 20000	31.1	44.1	47.1	53.2	54.8	54.9	56.6	56.9	57.0	57.9	58.1	58.3	58.3	59.1	59.4	59.9
IV 18000	31.6	44.6	47.6	53.7	55.3	55.4	57.1	57.4	57.5	58.4	58.6	58.8	58.8	59.6	59.9	60.4
IV 16000	31.6	44.6	47.6	53.8	55.4	55.5	57.3	57.5	57.6	58.5	58.8	58.9	58.9	59.8	60.0	60.5
IV 14000	31.6	44.6	47.6	53.8	55.4	55.5	57.3	57.5	57.6	58.5	58.8	58.9	58.9	59.8	60.0	60.5
IV 12000	31.7	45.1	48.1	54.5	56.1	56.3	58.0	58.3	58.4	59.3	59.5	59.6	59.6	60.5	60.7	61.2
IV 10000	33.4	47.5	50.7	57.3	58.9	59.0	60.7	61.0	61.1	62.0	62.2	62.4	62.4	63.4	63.6	64.1
IV 9200	34.0	48.1	51.3	58.1	59.8	59.9	61.6	61.9	62.0	62.9	63.1	63.2	63.2	64.2	64.5	65.0
IV 8000	36.3	50.6	54.8	62.6	64.3	64.5	66.3	66.6	66.7	67.6	67.8	68.0	68.0	68.9	69.2	69.7
IV 7000	37.1	51.4	55.9	64.5	66.2	66.3	68.6	69.1	69.2	70.2	70.4	70.6	70.6	71.6	71.8	72.3
IV 6000	37.5	51.9	56.6	65.3	67.1	67.2	69.4	69.9	70.1	71.1	71.3	71.4	71.4	72.4	72.7	73.2
IV 5000	39.3	54.4	59.3	68.3	70.1	70.2	72.7	73.2	73.3	74.4	74.7	74.8	74.8	75.8	76.0	76.5
IV 4500	40.7	56.6	61.5	70.8	72.9	73.2	75.9	76.5	76.6	78.0	78.3	78.4	78.4	79.4	79.6	80.1
IV 4000	42.1	58.6	63.5	73.9	76.0	76.3	79.0	79.6	79.8	81.1	81.4	81.5	81.5	82.5	82.7	83.2
IV 3500	43.2	60.2	65.1	76.0	78.3	78.6	81.5	82.1	82.2	83.7	84.0	84.1	84.1	85.1	85.3	85.8
IV 3000	43.6	60.7	65.6	77.9	80.6	81.1	84.2	85.0	85.1	86.7	87.0	87.1	87.1	88.1	88.3	88.8
IV 2500	44.1	61.6	66.7	79.4	82.1	82.6	85.7	86.6	86.7	88.3	88.6	88.7	88.7	89.7	89.9	90.4
IV 2000	45.0	62.9	68.1	81.4	84.1	84.8	88.7	89.7	89.8	91.4	91.7	91.8	91.8	92.8	93.0	93.5
IV 1800	45.0	62.9	68.1	81.4	84.1	84.8	88.7	89.7	89.8	91.4	91.7	91.8	91.8	92.8	93.0	93.5
IV 1500	45.1	63.0	68.2	81.7	84.5	85.2	89.4	90.4	90.7	92.3	92.5	92.7	92.7	93.7	93.9	94.4
IV 1200	45.1	63.2	68.6	82.6	86.0	86.8	91.1	92.0	92.3	93.9	94.2	94.3	94.3	95.3	95.5	96.0
IV 1000	45.1	63.2	68.6	82.6	86.5	87.3	91.9	92.9	93.2	94.8	95.0	95.2	95.2	96.1	96.4	96.9
IV 900	45.1	63.2	68.6	82.7	86.6	87.5	92.0	93.0	93.3	94.9	95.2	95.3	95.3	96.3	96.5	97.0
IV 800	45.1	63.4	68.7	83.1	87.3	88.2	92.8	93.8	94.0	95.7	95.9	96.0	96.0	97.0	97.3	97.8
IV 700	45.1	63.4	68.7	83.2	87.8	88.7	93.3	94.7	94.9	96.5	96.8	96.9	96.9	97.9	98.1	98.6
IV 600	45.3	63.6	68.9	83.5	88.1	88.9	93.5	94.9	95.2	96.8	97.0	97.1	97.1	98.1	98.4	98.9
IV 500	45.3	63.6	68.9	83.5	88.1	88.9	93.5	94.9	95.2	96.8	97.0	97.1	97.1	98.1	98.4	98.9
IV 400	45.5	63.7	69.1	83.6	88.2	89.1	93.7	95.0	95.3	96.9	97.1	97.3	97.3	98.3	98.5	99.0
IV 300	45.5	63.7	69.1	83.6	88.2	89.1	93.7	95.0	95.3	96.9	97.1	97.3	97.3	98.4	98.6	99.4
IV 200	45.5	63.7	69.1	83.6	88.2	89.1	93.7	95.0	95.3	96.9	97.1	97.3	97.3	98.4	98.8	99.8
IV 100	45.5	63.7	69.1	83.6	88.2	89.1	93.7	95.0	95.3	96.9	97.1	97.3	97.3	98.4	98.8	99.8
IV 0	45.5	63.7	69.1	83.6	88.2	89.1	93.7	95.0	95.3	96.9	97.1	97.3	97.3	98.4	98.8	99.8

TOTAL NUMBER OF OBSERVATIONS 805

USAF ETAC FORM 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

JUN
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

336-2500
OBSERVATIONS

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005
NO CEILING	12.4	13.9	24.2	29.4	31.0	31.8	34.9	36.0	36.5	38.4	38.8	38.9	39.1	41.4	41.9	43.3
≥ 20000	13.7	27.8	26.5	32.3	33.9	34.6	38.3	39.4	39.9	42.0	42.4	42.5	42.6	45.1	45.5	47.1
≥ 18000	13.8	27.9	26.6	32.5	34.1	34.9	38.7	39.8	40.3	42.4	42.8	42.9	43.0	45.5	45.9	47.5
≥ 16000	13.8	27.9	26.6	32.5	34.1	34.9	38.7	39.8	40.3	42.4	42.8	42.9	43.0	45.5	45.9	47.5
≥ 14000	13.8	27.9	26.6	32.5	34.1	34.9	38.7	39.8	40.3	42.4	42.8	42.9	43.0	45.5	45.9	47.5
≥ 12000	13.8	27.9	26.6	32.5	34.1	34.9	38.7	39.8	40.3	42.4	42.8	42.9	43.0	45.5	45.9	47.5
≥ 10000	14.6	21.9	27.6	34.7	36.5	37.2	41.2	42.3	42.8	44.9	45.2	45.4	45.5	48.1	48.5	50.1
≥ 9000	14.6	21.9	27.6	34.7	36.5	37.2	41.2	42.3	42.8	44.9	45.2	45.4	45.5	48.1	48.5	50.1
≥ 8000	14.6	21.9	27.6	34.7	36.5	37.2	41.2	42.3	42.8	44.9	45.2	45.4	45.5	48.1	48.5	50.1
≥ 7000	14.6	21.9	27.6	34.7	36.5	37.2	41.2	42.3	42.8	44.9	45.2	45.4	45.5	48.1	48.5	50.1
≥ 6000	18.2	27.7	35.1	44.5	46.8	47.6	52.7	54.0	54.9	57.6	58.0	58.2	58.6	61.4	61.9	63.7
≥ 5000	19.3	29.2	37.7	47.3	49.8	50.6	56.0	57.6	58.6	61.6	61.9	62.2	62.5	65.5	66.7	67.7
≥ 4500	21.1	31.5	39.6	50.6	53.3	54.3	60.6	62.3	63.3	66.6	67.0	67.2	67.6	70.6	71.2	72.9
≥ 4000	22.9	33.7	42.2	54.0	57.4	58.2	64.9	66.6	67.6	71.2	71.6	71.8	72.2	75.2	75.8	77.5
≥ 3500	24.1	35.2	43.6	55.7	59.5	60.3	67.4	69.1	70.2	73.8	74.3	74.5	74.9	77.9	78.5	80.2
≥ 3000	25.1	36.8	45.5	58.5	62.8	63.9	71.7	72.9	74.0	77.9	78.4	78.6	79.0	82.0	82.6	84.4
≥ 2500	25.7	37.6	46.6	59.8	64.2	65.3	72.4	74.4	75.5	79.7	80.2	80.5	80.8	83.8	84.4	86.3
≥ 2000	26.3	38.3	47.7	61.3	65.9	67.0	74.3	76.3	77.5	82.0	82.4	82.7	83.1	86.2	86.7	88.5
≥ 1800	26.3	38.4	47.8	61.6	66.3	67.4	74.8	76.8	78.0	82.6	83.1	83.3	83.7	86.7	87.3	89.1
≥ 1500	26.7	38.9	48.6	62.5	67.5	68.6	76.3	78.2	79.6	84.3	84.9	85.2	85.5	88.5	89.1	91.0
≥ 1200	26.9	39.2	48.8	63.5	68.9	70.0	77.9	79.9	81.3	86.2	86.9	87.3	87.6	90.6	91.2	93.1
≥ 1000	26.9	39.2	49.1	63.9	69.8	71.0	79.0	81.0	82.4	87.4	88.1	88.5	88.9	91.8	92.5	94.3
≥ 900	26.9	39.2	49.1	63.9	70.0	71.1	79.1	81.3	82.8	87.9	88.6	89.0	89.4	92.3	93.0	94.8
≥ 800	26.9	39.3	49.4	64.4	70.6	71.7	80.0	82.3	83.8	89.0	89.7	90.1	90.5	93.4	94.1	95.9
≥ 700	26.9	39.3	49.6	64.5	70.8	71.9	80.3	82.7	84.2	89.5	90.2	90.6	91.0	93.9	94.6	96.4
≥ 600	26.9	39.4	49.8	64.9	71.2	72.3	80.7	83.2	84.7	90.0	90.7	91.2	91.6	94.6	95.2	97.0
≥ 500	26.9	39.4	49.8	64.9	71.2	72.3	80.7	83.4	84.9	90.2	91.0	91.5	91.8	95.1	95.7	97.5
≥ 400	26.9	39.4	49.8	64.9	71.2	72.3	80.7	83.4	84.9	90.2	91.0	91.6	92.0	95.2	95.8	97.7
≥ 300	26.9	39.4	49.8	64.9	71.2	72.3	80.7	83.4	84.9	90.2	91.0	91.6	92.0	95.2	95.9	97.8
≥ 200	26.9	39.4	49.8	64.9	71.2	72.3	80.7	83.4	84.9	90.2	91.0	91.6	92.0	95.2	96.4	99.1
≥ 100	26.9	39.4	49.8	64.9	71.2	72.3	80.7	83.4	84.9	90.2	91.0	91.6	92.0	95.2	96.4	99.1
≥ 0	26.9	39.4	49.8	64.9	71.2	72.3	80.7	83.4	84.9	90.2	91.0	91.6	92.0	95.2	96.4	99.1

TOTAL NUMBER OF OBSERVATIONS 609

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 6670 GRAFENWHR AAF DL STATION NAME

73-81 YEARS

JUN

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

6600-9800

CEILING FEET	VISIBILITY, STATUTE MILES														
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01
NO CEILING	11.1	17.3	19.8	30.0	35.0	35.2	37.3	38.3	38.6	39.4	39.7	39.8	39.9	40.4	40.7
≥ 20000	12.7	19.3	22.1	33.0	38.8	38.7	40.8	41.9	42.2	43.0	43.3	43.4	43.5	44.1	44.5
≥ 18000	12.7	19.4	22.2	33.1	38.6	38.8	40.9	42.0	42.3	43.1	43.4	43.5	43.6	44.3	44.6
≥ 16000	12.7	19.4	22.2	33.1	38.6	38.8	40.9	42.0	42.3	43.1	43.4	43.5	43.6	44.3	44.6
≥ 14000	12.7	19.5	22.4	33.7	39.2	39.4	41.5	42.6	42.9	43.8	44.0	44.1	44.3	44.9	45.2
≥ 12000	12.9	20.1	23.1	34.5	39.9	40.2	42.3	43.4	43.6	44.5	44.7	44.9	45.0	45.7	46.1
≥ 10000	13.7	21.4	24.4	36.2	41.8	42.2	44.5	45.6	45.9	46.7	47.0	47.1	47.2	48.1	48.5
≥ 9000	14.2	21.9	24.8	37.0	42.6	43.0	45.5	46.6	46.8	47.7	48.0	48.1	48.2	49.1	49.4
≥ 8000	16.8	25.7	28.7	42.5	49.1	49.4	52.5	54.0	54.3	55.1	55.5	55.6	55.7	56.6	57.0
≥ 7000	17.2	27.2	30.4	44.7	51.5	51.9	55.4	57.1	57.4	58.2	58.6	58.8	59.0	59.8	60.2
≥ 6000	18.4	27.7	30.9	45.2	52.3	52.7	56.5	58.2	58.6	59.6	60.0	60.2	60.4	61.3	61.7
≥ 5000	20.0	30.4	33.9	49.9	57.2	57.6	61.8	63.7	64.0	65.0	65.4	65.8	66.1	67.4	67.7
≥ 4500	21.3	32.0	35.5	52.0	59.6	60.1	64.6	66.6	67.0	68.1	68.5	68.9	69.2	70.5	70.8
≥ 4000	22.2	33.1	36.8	53.6	61.2	61.8	66.5	68.5	68.9	70.1	70.5	70.8	71.2	72.4	72.8
≥ 3500	23.7	35.1	38.8	56.0	63.5	64.3	69.1	71.3	71.7	72.9	73.3	73.7	74.0	75.3	75.6
≥ 3000	24.4	36.1	39.9	58.0	65.8	66.5	71.6	74.0	74.4	75.6	76.0	76.4	76.8	78.0	78.4
≥ 2500	25.3	37.3	41.5	60.3	68.2	69.0	74.0	76.6	77.0	78.5	78.9	79.2	79.6	80.8	81.2
≥ 2000	25.6	38.1	42.3	61.7	69.8	70.6	76.0	79.0	79.5	81.1	81.5	81.8	82.2	83.4	83.8
≥ 1800	25.6	38.1	42.3	62.2	70.3	71.1	76.5	79.5	80.0	81.8	82.2	82.6	82.9	84.2	84.5
≥ 1500	25.8	38.9	43.4	63.5	71.8	72.6	78.6	81.6	82.2	84.2	84.5	84.9	85.3	86.5	86.9
≥ 1200	26.1	39.8	44.7	65.6	74.5	75.3	82.3	85.4	86.0	88.3	88.8	89.2	89.6	90.9	91.2
≥ 1000	26.5	40.4	45.6	67.1	76.5	77.3	84.7	88.3	88.9	91.3	91.8	92.3	92.7	93.9	94.3
≥ 900	26.6	40.7	45.9	67.4	76.9	77.6	85.2	88.8	89.4	91.8	92.3	92.8	93.2	94.4	94.8
≥ 800	26.6	40.7	45.9	67.5	77.0	77.8	85.7	89.2	89.9	92.3	92.8	93.3	93.7	94.9	95.3
≥ 700	26.6	40.7	45.9	67.5	77.4	78.1	86.3	90.0	90.7	93.6	94.1	94.6	94.9	96.2	96.5
≥ 600	26.7	40.8	46.4	68.0	77.9	78.6	87.1	91.1	91.8	94.7	95.2	95.7	96.0	97.3	97.7
≥ 500	26.8	40.9	46.5	68.1	78.0	78.7	87.3	91.2	92.0	94.8	95.3	95.8	96.2	97.5	97.9
≥ 400	26.8	40.9	46.5	68.1	78.0	78.7	87.4	91.3	92.1	94.9	95.4	96.2	96.5	97.9	98.3
≥ 300	26.8	40.9	46.5	68.1	78.0	78.7	87.4	91.3	92.1	94.9	95.4	96.2	96.5	97.9	98.3
≥ 200	26.8	40.9	46.5	68.1	78.0	78.7	87.4	91.3	92.1	95.1	95.6	96.3	96.7	98.1	98.6
≥ 100	26.8	40.9	46.5	68.1	78.0	78.7	87.4	91.3	92.1	95.1	95.6	96.3	96.7	98.1	98.8
≥ 0	26.8	40.9	46.5	68.1	78.0	78.7	87.4	91.3	92.1	95.1	95.6	96.3	96.7	98.1	98.8

TOTAL NUMBER OF OBSERVATIONS 409

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6877

GRAFENWOHR AAF DL

73-81

JUN

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1967-1968

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1.4	≥1	≥.8	≥.6	≥.5	≥.4	≥.3	≥.2
NO CEILING	24.9	35.2	36.7	37.7	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1
≥ 20000	29.2	41.0	41.8	43.9	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4
≥ 18000	29.4	41.3	42.7	44.3	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7
≥ 16000	29.4	41.3	42.0	44.3	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7
≥ 14000	29.5	41.5	42.3	44.5	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
≥ 12000	29.7	42.2	42.9	45.1	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6
≥ 10000	31.3	44.3	45.1	47.7	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2	48.2
≥ 9000	32.1	45.5	46.4	49.1	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6	49.6
≥ 8000	36.2	50.8	52.4	56.1	56.9	56.9	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
≥ 7000	37.6	52.4	54.0	58.2	59.1	59.1	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2
≥ 6000	37.6	52.4	54.1	58.7	59.6	59.6	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7
≥ 5000	40.5	57.0	59.0	63.7	64.5	64.5	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
≥ 4000	42.7	59.1	61.1	65.9	66.9	66.9	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0	67.0
≥ 3500	44.1	62.4	64.6	70.0	71.2	71.3	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4	71.4
≥ 3000	46.5	65.6	68.7	73.5	74.9	75.0	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2	75.2
≥ 2500	49.9	71.1	73.4	79.5	81.1	81.2	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3	81.3
≥ 2000	51.5	73.7	76.1	82.9	84.8	84.9	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2	85.2
≥ 1800	52.8	77.0	79.7	87.9	89.9	90.0	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4	90.4
≥ 1600	53.0	77.6	80.3	88.5	90.7	90.9	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3	91.3
≥ 1400	54.4	79.5	82.2	90.7	93.6	93.7	94.2	94.2	94.3	94.3	94.3	94.3	94.3	94.3	94.3	94.3
≥ 1200	55.7	80.6	83.4	92.7	95.7	95.8	96.3	96.3	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4
≥ 1000	55.1	80.8	83.8	93.6	96.9	97.0	97.8	97.8	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9
≥ 900	55.3	81.1	84.1	94.1	97.4	97.5	98.3	98.3	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
≥ 800	55.3	81.1	84.2	94.2	97.5	97.7	98.4	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
≥ 700	55.3	81.1	84.2	94.2	97.7	98.1	99.3	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
≥ 600	55.4	81.2	84.3	94.3	97.9	98.6	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 500	55.4	81.2	84.3	94.3	97.9	98.6	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 400	55.4	81.2	84.3	94.3	97.9	98.6	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 300	55.4	81.2	84.3	94.3	97.9	98.6	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 200	55.4	81.2	84.3	94.3	97.9	98.6	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 100	55.4	81.2	84.3	94.3	97.9	98.6	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	55.4	81.2	84.3	94.3	97.9	98.6	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 809

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 6873 GRAFENWOHR AAF DL

73-81

YEARS

JUN

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1200-1400

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.75	≥0.5	≥0.25	≥0.15	≥0.1	≥0.05	≥0
NO CEILING	26.3	34.1	34.6	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9	34.9
≥ 20000	31.7	39.8	40.4	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7
≥ 18000	31.6	40.4	41.3	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5
≥ 16000	31.5	40.4	41.3	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5
≥ 14000	31.6	40.4	41.3	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5
≥ 12000	32.5	41.3	42.2	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4
≥ 10000	34.9	44.1	45.1	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4
≥ 9000	35.8	45.2	46.2	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5	46.5
≥ 8000	41.0	51.5	52.8	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0	53.0
≥ 7000	42.9	54.1	55.5	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0
≥ 6000	43.4	55.1	56.5	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1	57.1
≥ 5000	46.7	60.6	61.9	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7	62.7
≥ 4500	50.1	64.5	65.9	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6
≥ 4000	54.5	70.8	72.2	73.3	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4	73.4
≥ 3500	58.2	75.8	77.4	79.1	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2	79.2
≥ 3000	65.7	84.9	86.7	88.8	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9	88.9
≥ 2500	66.7	87.5	89.5	92.2	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3	92.3
≥ 2000	68.5	90.5	92.8	95.8	95.9	95.9	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0	96.0
≥ 1800	68.9	90.9	93.2	96.2	96.3	96.3	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4
≥ 1500	69.1	91.5	93.9	97.2	97.5	97.5	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7	97.7
≥ 1200	69.3	91.8	94.3	97.9	98.3	98.3	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4	98.4
≥ 1000	69.3	91.8	94.4	98.3	99.0	99.1	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
≥ 900	69.3	92.0	94.6	98.4	99.1	99.3	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
≥ 800	69.3	92.0	94.6	98.5	99.3	99.4	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 700	69.3	92.0	94.6	98.5	99.3	99.4	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
≥ 600	69.3	92.0	94.6	98.5	99.4	99.5	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 500	69.3	92.0	94.6	98.5	99.4	99.5	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 400	69.3	92.0	94.6	98.5	99.4	99.5	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 300	69.3	92.0	94.6	98.5	99.4	99.5	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 200	69.3	92.0	94.6	98.5	99.4	99.5	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 100	69.3	92.0	94.6	98.5	99.4	99.5	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 50	69.3	92.0	94.6	98.5	99.4	99.5	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	69.3	92.0	94.6	98.5	99.4	99.5	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 809

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6870
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

JUN
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

1500-1700
TIME

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.75	≥0.5	≥0.25	≥0.15	≥0.1	≥0.05	≥0.01
NO CEILING	28.9	36.5	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0
≥ 20000	35.1	44.8	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4
IN 18000	36.2	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7
IN 6000	36.2	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7	46.7
IN 14000	36.7	46.5	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2
IN 12000	37.2	47.0	47.7	47.7	47.7	47.7	47.7	47.7	47.7	47.7	47.7	47.7	47.7	47.7	47.7	47.7
IN 10000	40.4	50.7	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
IN 9000	41.7	52.7	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5	53.5
IN 8000	46.2	58.1	59.0	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1
IN 7000	48.8	61.2	62.1	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3	62.3
IN 6000	49.1	61.9	62.7	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0	63.0
IN 5000	52.6	67.2	68.7	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3
IN 4500	55.7	71.1	72.1	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3	72.3
IN 4000	61.7	77.4	78.5	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1
IN 3500	65.3	83.3	84.8	85.6	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7	85.7
IN 3000	71.0	89.9	91.4	92.5	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6	92.6
IN 2500	72.7	92.6	94.6	95.7	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8
IN 2000	73.7	94.3	96.3	97.4	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5	97.5
IN 1800	74.0	94.7	96.7	97.8	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9
IN 1500	74.2	95.3	97.3	98.4	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
IN 1200	74.4	95.6	97.5	98.6	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8	98.8
IN 1000	74.6	95.7	97.7	98.8	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1	99.1
IN 900	74.6	95.7	97.7	98.9	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
IN 800	74.6	95.7	97.7	99.0	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
IN 700	74.6	95.7	97.7	99.0	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IN 600	74.6	95.7	97.7	99.0	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IN 500	74.6	95.7	97.7	99.0	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IN 400	74.6	95.7	97.7	99.0	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IN 300	74.6	95.7	97.7	99.0	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IN 200	74.6	95.7	97.7	99.0	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IN 100	74.6	95.7	97.7	99.0	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
IN 0	74.6	95.7	97.7	99.0	99.8	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 817

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1977 GRAFENWOHD AAF DL

73-81

JUN

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1977-1980

CEILING FEET	VISIBILITY STATUTE MILES															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2.5	≥ 2	≥ 1.5	≥ 1	≥ .5	≥ .3	≥ .25	≥ .2	≥ .15	≥ .1	≥ .05
NO CEILING	34.9	42.3	42.7	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2
≥ 20000	42.6	51.9	52.7	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6	53.6
≥ 18000	44.2	53.6	54.6	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4	55.4
≥ 16000	44.3	53.7	54.7	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6
≥ 14000	44.3	53.7	54.7	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6	55.6
≥ 12000	45.3	54.8	55.9	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8	56.8
≥ 10000	48.0	58.3	59.4	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2
≥ 9000	48.6	59.4	60.7	61.7	61.7	61.7	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9
≥ 8000	53.5	65.9	67.9	69.3	69.3	69.3	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4
≥ 7000	55.2	67.9	70.3	71.5	71.7	71.7	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9	71.9
≥ 6000	56.4	69.1	71.2	72.7	73.0	73.0	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1	73.1
≥ 5000	60.0	73.7	75.8	77.5	77.8	77.8	77.9	77.9	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
≥ 4500	63.3	77.5	80.4	82.2	82.5	82.5	82.6	82.6	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7
≥ 4000	66.4	81.9	84.7	86.9	87.2	87.2	87.3	87.3	87.4	87.4	87.4	87.4	87.4	87.4	87.4	87.4
≥ 3500	68.8	84.9	87.7	89.9	90.1	90.1	90.4	90.4	90.5	90.5	90.5	90.5	90.5	90.5	90.5	90.5
≥ 3000	71.1	87.7	90.5	92.8	93.2	93.2	93.5	93.5	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6
≥ 2500	72.5	89.5	92.5	95.1	95.4	95.4	95.8	95.9	96.0	96.2	96.2	96.2	96.2	96.2	96.2	96.2
≥ 2000	73.7	90.4	93.7	96.3	96.7	96.7	97.0	97.2	97.3	97.4	97.4	97.4	97.4	97.4	97.4	97.4
≥ 1800	73.0	90.4	93.7	96.4	96.8	96.8	97.2	97.3	97.4	97.5	97.5	97.5	97.5	97.5	97.5	97.5
≥ 1500	73.2	91.0	94.3	97.0	97.7	97.7	98.0	98.1	98.3	98.4	98.4	98.4	98.4	98.4	98.4	98.4
≥ 1200	73.3	91.1	94.6	97.4	98.0	98.0	98.5	98.6	98.8	99.0	99.0	99.0	99.0	99.0	99.0	99.0
≥ 1000	73.3	91.1	94.6	97.4	98.0	98.0	98.6	98.8	98.9	99.1	99.1	99.1	99.1	99.1	99.1	99.1
≥ 900	73.3	91.1	94.6	97.5	98.4	98.4	99.0	99.1	99.3	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 800	73.3	91.1	94.6	97.5	98.4	98.4	99.0	99.1	99.3	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 700	73.3	91.1	94.6	97.5	98.6	98.6	99.5	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 600	73.3	91.1	94.6	97.5	98.6	98.6	99.5	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 500	73.3	91.1	94.6	97.5	98.6	98.6	99.5	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 400	73.3	91.1	94.6	97.5	98.6	98.6	99.5	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 300	73.3	91.1	94.6	97.5	98.6	98.6	99.5	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 200	73.3	91.1	94.6	97.5	98.6	98.6	99.5	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 100	73.3	91.1	94.6	97.5	98.6	98.6	99.5	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	73.3	91.1	94.6	97.5	98.6	98.6	99.5	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 810

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AT WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6-77 GRAFENWOHR AAF DL

73-61

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

11-2-2100

CEILING FEET	VISIBILITY STATUTE MILES															
	210	20	25	24	23	22	21	20	19	18	17	16	15	14	13	12
20000	36.2	45.2	47.3	50.6	51.0	51.0	51.9	52.0	52.0	52.0	52.1	52.1	52.2	52.4	52.4	52.4
18000	39.9	49.8	52.1	56.2	56.8	56.9	58.2	58.3	58.7	58.3	58.5	58.5	58.7	58.8	58.8	58.8
16000	40.2	50.6	53.1	57.2	57.8	57.9	59.2	59.3	59.3	59.5	59.8	59.8	59.9	60.0	60.0	60.0
14000	40.2	50.6	53.1	57.2	57.8	57.9	59.2	59.3	59.3	59.5	59.8	59.8	59.9	60.0	60.0	60.0
12000	40.3	51.7	54.5	58.5	59.2	59.3	62.5	60.6	60.6	60.9	61.1	61.1	61.3	61.4	61.4	61.4
10000	43.7	55.9	58.8	62.9	63.6	63.7	65.7	65.1	65.1	65.3	65.6	65.6	65.7	65.8	65.8	65.8
8000	44.2	56.6	59.7	63.9	64.6	64.9	66.1	66.2	66.2	66.5	66.7	66.7	66.8	67.0	67.0	67.0
6000	47.4	61.3	65.3	70.3	71.0	71.3	72.8	72.9	72.9	73.1	73.4	73.4	73.5	73.6	73.6	73.6
4000	48.5	62.9	67.3	72.5	73.3	73.5	75.0	75.1	75.1	75.4	75.6	75.6	75.7	75.9	75.9	75.9
2000	48.8	63.2	67.8	73.1	73.9	74.1	75.6	75.7	75.7	76.0	76.2	76.2	76.4	76.5	76.5	76.5
1000	52.6	67.5	72.7	77.6	78.3	78.6	80.1	80.2	80.3	80.6	80.8	80.8	80.9	81.1	81.1	81.1
500	54.3	69.6	74.1	80.9	82.1	82.3	83.8	84.4	84.5	84.8	85.0	85.0	85.1	85.3	85.3	85.3
250	55.3	71.5	76.1	83.5	84.7	84.9	86.4	87.0	87.1	87.4	87.6	87.6	87.7	87.9	87.9	87.9
100	56.4	72.9	77.5	85.3	86.4	86.6	88.4	89.0	89.1	89.4	89.6	89.6	89.7	89.9	89.9	89.9
50	57.7	74.3	79.3	87.6	88.7	89.1	90.7	91.3	91.7	92.0	92.2	92.2	92.3	92.5	92.5	92.5
25	57.9	74.8	79.8	88.5	89.6	89.9	92.0	92.6	92.9	93.2	93.4	93.4	93.6	93.7	93.7	93.7
10	59.4	75.6	80.6	89.5	90.6	91.0	93.6	94.3	94.7	95.0	95.3	95.3	95.4	95.5	95.5	95.5
5	58.4	75.7	80.9	89.9	91.0	91.3	93.9	94.7	95.0	95.4	95.7	95.7	95.8	95.9	95.9	95.9
2	59.7	76.5	81.7	90.6	91.8	92.2	95.0	95.8	96.2	96.5	96.8	96.8	96.9	97.0	97.0	97.0
1	59.1	76.6	81.9	90.8	92.5	92.8	95.8	96.5	96.9	97.3	97.5	97.5	97.6	97.8	97.8	97.8
0.5	59.7	76.6	81.9	91.0	92.6	92.9	96.3	97.0	97.4	97.8	98.1	98.1	98.4	98.5	98.5	98.5
0.25	59.7	76.6	81.9	91.0	93.1	93.4	96.8	97.5	97.9	98.4	98.8	98.8	99.0	99.1	99.1	99.1
0.1	59.0	76.6	81.9	91.1	93.4	93.8	97.5	98.4	98.8	99.3	99.6	99.6	99.9	100.0	100.0	100.0
0.05	59.0	76.6	81.9	91.1	93.4	93.8	97.5	98.4	98.8	99.3	99.6	99.6	99.9	100.0	100.0	100.0
0.025	59.0	76.6	81.9	91.1	93.4	93.8	97.5	98.4	98.8	99.3	99.6	99.6	99.9	100.0	100.0	100.0
0.01	59.0	76.6	81.9	91.1	93.4	93.8	97.5	98.4	98.8	99.3	99.6	99.6	99.9	100.0	100.0	100.0
0.005	59.0	76.6	81.9	91.1	93.4	93.8	97.5	98.4	98.8	99.3	99.6	99.6	99.9	100.0	100.0	100.0
0.0025	59.0	76.6	81.9	91.1	93.4	93.8	97.5	98.4	98.8	99.3	99.6	99.6	99.9	100.0	100.0	100.0
0.001	59.0	76.6	81.9	91.1	93.4	93.8	97.5	98.4	98.8	99.3	99.6	99.6	99.9	100.0	100.0	100.0
0.0005	59.0	76.6	81.9	91.1	93.4	93.8	97.5	98.4	98.8	99.3	99.6	99.6	99.9	100.0	100.0	100.0
0.00025	59.0	76.6	81.9	91.1	93.4	93.8	97.5	98.4	98.8	99.3	99.6	99.6	99.9	100.0	100.0	100.0
0.0001	59.0	76.6	81.9	91.1	93.4	93.8	97.5	98.4	98.8	99.3	99.6	99.6	99.9	100.0	100.0	100.0
0.00005	59.0	76.6	81.9	91.1	93.4	93.8	97.5	98.4	98.8	99.3	99.6	99.6	99.9	100.0	100.0	100.0
0.000025	59.0	76.6	81.9	91.1	93.4	93.8	97.5	98.4	98.8	99.3	99.6	99.6	99.9	100.0	100.0	100.0
0.00001	59.0	76.6	81.9	91.1	93.4	93.8	97.5	98.4	98.8	99.3	99.6	99.6	99.9	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 528

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
 USAF ETAC
 AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 6H77 GRAFENWOHR AAF DL STATION NAME

73-81 YEARS

JULY MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

ALL DATA

CEILING FEET	VISIBILITY - STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.75	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01
NO CEILING	25.5	33.6	35.7	39.0	40.1	40.3	41.2	41.5	41.6	42.1	42.2	42.2	42.3	42.8	42.9	43.2
≥ 20000	29.4	33.9	41.0	44.8	46.0	46.1	47.2	47.6	47.7	48.2	48.3	48.3	48.4	48.9	49.0	49.4
≥ 18000	30.7	39.6	41.8	45.5	46.8	46.9	48.0	48.4	48.5	49.0	49.1	49.2	49.2	49.7	49.8	50.2
≥ 16000	30.7	39.6	41.8	45.6	46.8	46.9	48.1	48.4	48.5	49.0	49.1	49.2	49.2	49.7	49.9	50.2
≥ 14000	31.1	39.7	41.9	45.8	47.0	47.1	48.3	48.6	48.7	49.2	49.3	49.4	49.4	49.9	50.1	50.4
≥ 12000	32.5	42.4	42.6	46.6	47.8	47.9	49.1	49.4	49.5	50.0	50.1	50.2	50.2	50.8	50.9	51.3
≥ 10000	32.5	43.0	45.3	49.5	50.7	50.9	52.1	52.4	52.5	53.0	53.1	53.2	53.2	53.8	53.9	54.3
≥ 9000	33.2	43.9	46.4	50.7	52.0	52.2	53.4	53.7	53.8	54.3	54.5	54.5	54.6	55.1	55.3	55.6
≥ 8000	36.9	48.7	51.7	56.7	58.2	58.3	59.8	60.1	60.3	60.9	61.0	61.1	61.1	61.7	61.8	62.2
≥ 7000	38.2	50.5	53.7	59.2	60.8	61.0	62.5	63.0	63.1	63.7	63.9	64.0	64.0	64.6	64.8	65.2
≥ 6000	38.7	51.1	54.4	60.0	61.6	61.8	63.4	63.8	64.0	64.6	64.8	64.9	65.0	65.6	65.7	66.1
≥ 5000	41.4	55.0	58.4	64.4	66.1	66.3	68.0	68.5	68.7	69.4	69.5	69.6	69.7	70.4	70.6	70.9
≥ 4500	43.6	57.7	61.3	67.7	69.5	69.7	71.7	72.3	72.5	73.3	73.4	73.5	73.6	74.3	74.4	74.8
≥ 4000	46.1	61.2	64.8	71.8	73.8	74.0	76.0	76.6	76.8	77.6	77.8	77.9	78.0	78.7	78.8	79.2
≥ 3500	48.3	64.1	67.9	75.1	77.2	77.5	79.6	80.2	80.5	81.3	81.5	81.6	81.7	82.3	82.5	82.9
≥ 3000	51.1	67.7	71.5	79.4	81.7	82.1	84.2	84.9	85.2	86.1	86.2	86.3	86.4	87.1	87.3	87.7
≥ 2500	52.1	69.3	73.4	81.7	84.1	84.4	86.7	87.4	87.7	88.7	88.8	88.9	89.0	89.7	89.8	90.2
≥ 2000	52.9	70.9	75.2	83.9	86.3	86.7	89.2	90.0	90.3	91.4	91.5	91.6	91.7	92.4	92.5	93.0
≥ 1800	53.1	71.1	75.4	84.2	86.7	87.1	89.6	90.4	90.7	91.8	92.0	92.1	92.2	92.8	93.0	93.4
≥ 1500	53.5	71.8	76.2	85.2	87.9	88.3	91.0	91.8	92.2	93.3	93.5	93.6	93.7	94.3	94.5	94.9
≥ 1200	53.7	72.3	76.8	86.2	89.1	89.5	92.4	93.2	93.6	94.8	95.0	95.1	95.2	95.9	96.0	96.4
≥ 1000	53.7	72.4	77.0	86.6	89.8	90.2	93.3	94.3	94.6	95.8	96.1	96.2	96.3	97.0	97.1	97.5
≥ 900	53.8	72.5	77.0	86.7	90.0	90.5	93.6	94.5	94.9	96.1	96.4	96.5	96.6	97.3	97.4	97.8
≥ 800	53.8	72.5	77.1	86.9	90.4	90.8	94.0	95.0	95.3	96.6	96.8	97.0	97.1	97.7	97.9	98.3
≥ 700	53.9	72.5	77.1	87.0	90.6	91.1	94.5	95.5	95.9	97.2	97.5	97.6	97.7	98.4	98.5	98.9
≥ 600	53.9	72.6	77.3	87.1	90.8	91.3	94.7	95.9	96.3	97.6	97.8	97.9	98.1	98.7	98.9	99.3
≥ 500	53.9	72.6	77.3	87.1	90.8	91.3	94.8	95.9	96.3	97.7	97.9	98.0	98.1	98.9	99.0	99.4
≥ 400	53.9	72.6	77.3	87.1	90.8	91.3	94.8	95.9	96.3	97.7	97.9	98.1	98.2	98.9	99.1	99.5
≥ 300	53.9	72.6	77.3	87.1	90.8	91.3	94.8	95.9	96.4	97.7	97.9	98.1	98.2	98.9	99.1	99.5
≥ 200	53.9	72.6	77.3	87.1	90.8	91.3	94.8	95.9	96.4	97.7	97.9	98.1	98.2	99.0	99.2	99.8
≥ 100	53.9	72.6	77.3	87.1	90.8	91.3	94.8	95.9	96.4	97.7	97.9	98.1	98.2	99.0	99.2	99.8
≥ 0	53.9	72.6	77.3	87.1	90.8	91.3	94.8	95.9	96.4	97.7	97.9	98.1	98.2	99.0	99.2	100.0

TOTAL NUMBER OF OBSERVATIONS 6869

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6870 GRAFENWOHR AAF DL

73-81

JUL

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

000-2200

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	27.1	31.0	35.3	43.7	45.1	45.1	47.3	47.7	47.7	48.9	48.9	48.9	48.9	48.9	48.9	48.9
≥20000	21.6	33.7	38.2	47.7	49.2	49.2	51.4	51.8	51.8	53.0	53.0	53.0	53.0	53.0	53.0	53.0
≥18000	21.6	33.7	38.2	47.7	49.2	49.2	51.4	51.8	51.8	53.0	53.0	53.0	53.0	53.0	53.0	53.0
≥16000	21.6	33.7	38.2	47.7	49.2	49.2	51.4	51.8	51.8	53.0	53.0	53.0	53.0	53.0	53.0	53.0
≥14000	21.6	33.7	38.2	47.7	49.2	49.2	51.4	51.8	51.8	53.0	53.0	53.0	53.0	53.0	53.0	53.0
≥12000	21.9	34.1	38.6	48.3	49.8	49.8	52.0	52.4	52.4	53.6	53.6	53.6	53.6	53.6	53.6	53.6
≥10000	24.5	38.1	42.5	52.3	54.3	54.3	56.7	57.1	57.1	58.3	58.3	58.3	58.3	58.3	58.3	58.3
≥9000	25.1	39.0	43.6	53.4	55.4	55.4	57.8	58.2	58.2	59.4	59.4	59.4	59.4	59.4	59.4	59.4
≥8000	28.2	43.5	48.2	58.9	61.1	61.1	64.0	64.7	64.7	65.9	65.9	65.9	66.0	66.0	66.0	66.0
≥7000	30.2	45.9	50.6	62.2	64.6	64.6	67.6	68.3	68.3	69.5	69.5	69.5	69.6	69.6	69.6	69.6
≥6000	30.5	46.1	50.8	62.7	65.1	65.1	68.1	68.8	68.8	70.0	70.0	70.0	70.1	70.1	70.1	70.1
≥5000	33.9	51.6	56.9	68.9	71.4	71.4	74.5	75.2	75.2	76.4	76.4	76.4	76.5	76.5	76.6	76.6
≥4500	35.7	54.1	59.5	72.0	74.8	74.8	78.1	78.8	78.8	80.0	80.0	80.0	80.1	80.1	80.4	80.4
≥4000	36.6	55.4	61.2	74.8	77.8	77.8	81.4	82.2	82.2	83.4	83.4	83.4	83.5	83.5	83.7	83.7
≥3500	37.5	56.4	62.3	76.3	79.5	79.5	83.5	84.5	84.5	85.7	85.7	85.7	85.8	85.8	86.0	86.0
≥3000	39.3	58.8	65.7	80.5	83.7	83.7	88.1	89.2	89.2	90.4	90.4	90.4	90.5	90.5	90.7	90.7
≥2500	39.5	59.2	66.1	82.0	85.3	85.3	89.9	91.0	91.0	92.2	92.2	92.2	92.3	92.3	92.5	92.5
≥2000	40.0	60.0	67.0	83.7	87.0	87.0	91.8	92.9	92.9	94.1	94.1	94.1	94.2	94.2	94.5	94.5
≥1800	40.2	60.2	67.2	84.0	87.5	87.5	92.4	93.5	93.5	94.7	94.7	94.7	94.8	94.8	95.1	95.1
≥1500	40.4	60.8	67.8	85.5	89.2	89.2	94.1	95.5	95.5	96.7	96.7	96.7	96.9	96.9	97.1	97.1
≥1200	40.6	61.1	68.1	86.1	89.8	89.8	94.9	96.4	96.4	97.6	97.6	97.6	97.7	97.7	98.0	98.0
≥1000	40.6	61.1	68.1	86.1	89.8	89.8	94.9	96.4	96.4	97.6	97.6	97.6	97.7	97.7	98.0	98.0
≥900	40.6	61.1	68.1	86.4	90.0	90.0	95.4	96.9	96.9	98.1	98.1	98.1	98.2	98.2	98.4	98.4
≥800	40.6	61.1	68.1	86.5	90.1	90.2	95.7	97.2	97.3	98.7	98.7	98.7	98.8	98.8	99.0	99.0
≥700	40.6	61.1	68.1	86.5	90.1	90.2	95.7	97.2	97.3	98.7	98.7	98.7	98.8	98.8	99.0	99.0
≥600	40.6	61.1	68.1	86.5	90.1	90.4	95.8	97.3	97.5	98.8	99.0	99.0	99.2	99.2	99.4	99.4
≥500	40.6	61.1	68.1	86.5	90.1	90.4	95.8	97.3	97.5	98.8	99.0	99.0	99.2	99.2	99.4	99.4
≥400	40.6	61.1	68.1	86.5	90.1	90.4	95.8	97.5	97.6	98.9	99.2	99.2	99.3	99.3	99.5	99.5
≥300	40.6	61.1	68.1	86.5	90.1	90.4	95.8	97.6	97.8	99.2	99.4	99.4	99.5	99.5	99.8	99.8
≥200	40.6	61.1	68.1	86.5	90.1	90.4	95.8	97.6	97.8	99.2	99.4	99.4	99.5	99.5	99.9	100.0
≥100	40.6	61.1	68.1	86.5	90.1	90.4	95.8	97.6	97.8	99.2	99.4	99.4	99.5	99.5	99.9	100.0
≥0	40.6	61.1	68.1	86.5	90.1	90.4	95.8	97.6	97.8	99.2	99.4	99.4	99.5	99.5	99.9	100.0

TOTAL NUMBER OF OBSERVATIONS 830

USAF ETAC FORM 10-64 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
AFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 1877 STATION NAME GRAFFENWOHR AAF DL YEARS 73-81 100

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1300-0500

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005
NO CEILING	9.1	14.7	18.5	24.2	26.0	26.2	29.7	31.2	31.3	34.2	35.0	35.6	36.9	37.9	38.4	38.7
≥ 20000	9.6	15.4	19.9	26.6	28.5	29.0	32.6	34.3	34.5	37.5	38.4	39.0	40.4	41.5	42.0	42.4
≥ 18000	9.6	15.4	19.9	26.7	28.6	29.1	32.7	34.4	34.7	37.7	38.5	39.1	40.6	41.6	42.1	42.5
≥ 16000	9.6	15.4	19.9	26.7	28.6	29.1	32.7	34.4	34.7	37.7	38.5	39.1	40.6	41.6	42.1	42.5
≥ 14000	9.6	15.4	19.9	26.7	28.6	29.1	32.7	34.4	34.7	37.7	38.5	39.1	40.6	41.6	42.1	42.5
≥ 12000	9.9	15.8	21.2	27.6	29.5	30.1	33.7	35.4	35.6	38.6	39.5	40.1	41.5	42.6	43.1	43.4
≥ 10000	12.4	18.9	24.3	32.0	34.4	35.1	38.9	40.8	41.0	44.0	44.9	45.5	46.9	48.1	49.6	49.0
≥ 9000	13.4	20.3	25.8	33.8	36.3	37.1	40.9	42.8	43.1	46.1	46.9	47.7	49.1	50.3	50.8	51.1
≥ 8000	15.6	24.4	30.3	39.2	42.5	43.2	48.0	51.0	51.4	54.3	55.7	56.4	57.9	59.1	59.6	59.9
≥ 7000	17.0	25.9	32.1	41.9	45.1	45.8	50.9	54.0	54.4	57.9	58.8	59.6	61.0	62.3	62.9	63.4
≥ 6000	17.0	25.9	32.1	42.1	45.5	46.2	51.3	54.4	54.8	58.2	59.2	59.9	61.4	62.7	63.3	63.8
≥ 5000	19.4	30.3	37.2	48.3	51.7	52.5	58.1	61.3	61.6	65.3	66.3	67.0	69.7	70.3	70.9	71.4
≥ 4500	20.3	32.5	39.5	51.4	55.1	55.8	61.6	64.7	65.1	68.8	69.8	70.5	72.4	73.8	74.4	74.8
≥ 4000	21.1	33.5	40.6	53.8	58.0	58.7	64.6	67.7	68.1	71.8	72.8	73.5	75.5	77.0	77.6	78.1
≥ 3500	21.9	34.4	41.6	55.0	59.3	60.0	66.2	69.4	69.8	73.6	74.6	75.3	77.3	78.8	79.4	79.9
≥ 3000	23.1	36.5	44.5	58.6	63.7	64.4	70.9	74.1	74.5	78.5	79.4	80.1	82.1	83.6	84.2	84.7
≥ 2500	23.1	36.9	45.7	60.3	65.5	66.3	73.0	76.3	76.7	80.6	81.6	82.3	84.2	85.8	86.4	86.9
≥ 2000	23.5	37.5	45.6	61.5	66.9	67.7	74.7	78.2	78.6	82.6	83.5	84.2	86.2	87.7	88.3	88.8
≥ 1800	23.6	37.8	45.8	61.9	67.3	68.1	75.1	78.6	78.9	82.9	83.9	84.6	86.5	88.1	88.7	89.2
≥ 1500	23.7	38.3	46.5	63.2	69.0	69.8	76.9	80.9	81.2	85.4	86.4	87.2	89.2	90.7	91.3	91.8
≥ 1000	23.9	38.6	46.8	64.4	70.4	71.2	78.7	82.8	83.2	87.5	88.4	89.3	91.2	92.8	93.4	93.9
≥ 900	23.9	38.7	47.4	65.7	71.7	72.6	80.1	84.2	84.6	89.0	90.0	90.9	92.8	94.3	94.9	95.4
≥ 800	23.9	38.7	47.4	65.7	71.7	72.6	80.4	84.6	85.0	89.4	90.4	91.2	93.1	94.7	95.3	95.8
≥ 700	23.9	38.9	47.5	66.1	72.4	73.3	81.3	85.8	86.2	90.6	91.6	92.4	94.3	95.9	96.5	97.0
≥ 600	23.9	38.9	47.5	66.2	72.6	73.4	81.6	86.0	86.4	90.9	91.8	92.7	94.6	96.1	96.8	97.2
≥ 500	23.9	38.9	47.5	66.2	72.6	73.4	81.8	86.5	86.9	91.3	92.3	93.1	95.1	96.6	97.2	97.7
≥ 400	23.9	38.9	47.5	66.2	72.6	73.4	82.1	86.8	87.1	91.9	92.9	93.9	95.8	97.4	98.0	98.4
≥ 300	23.9	38.9	47.5	66.2	72.6	73.4	82.1	86.8	87.2	92.2	93.1	94.1	96.0	97.8	98.6	99.0
≥ 200	23.9	38.9	47.5	66.2	72.6	73.4	82.1	86.8	87.2	92.2	93.1	94.1	96.0	97.8	98.8	99.8
≥ 100	23.9	38.9	47.5	66.2	72.6	73.4	82.1	86.8	87.2	92.2	93.1	94.1	96.0	97.8	98.8	99.8

TOTAL NUMBER OF OBSERVATIONS 31

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION GRAFENWOHR AAF DL

73-81

JUL

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1600-2400

CEILING FEET	VISIBILITY - STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥1	≥1/2	≥1/4	≥1/8	≥1/16	≥1/32	≥1/64	≥1/128	≥1/256	≥1/512
NO. CEILING	8.9	13.1	14.8	20.7	24.1	24.4	27.3	29.1	29.5	31.3	31.6	32.7	32.7	33.1	33.6	34.1
≥ 20000	9.5	14.4	16.8	23.6	27.1	27.6	30.2	32.5	33.0	35.0	35.4	35.7	36.5	36.8	37.5	38.0
≥ 18000	9.5	14.4	16.8	23.6	27.1	27.6	30.2	32.5	33.0	35.0	35.4	35.7	36.5	36.8	37.5	38.0
≥ 16000	9.5	14.4	16.8	23.6	27.1	27.6	30.2	32.5	33.0	35.0	35.4	35.7	36.5	36.8	37.5	38.0
≥ 14000	9.6	14.6	17.0	23.9	27.4	27.9	30.6	32.9	33.3	35.4	35.7	36.1	36.9	37.2	37.9	38.4
≥ 12000	9.7	14.7	17.1	24.3	28.2	28.6	31.4	33.7	34.2	36.2	36.6	36.9	37.7	38.0	38.7	39.2
≥ 10000	11.1	16.8	19.5	27.9	32.5	33.3	36.2	38.7	39.4	41.4	41.8	42.1	43.0	43.3	44.0	44.5
≥ 9000	11.5	17.7	20.7	29.5	34.2	34.7	38.0	40.7	41.3	43.3	43.7	44.0	44.9	45.2	46.0	46.5
≥ 8000	15.4	22.9	26.2	35.9	41.0	41.5	45.2	47.9	48.5	51.0	51.4	51.7	52.6	53.2	53.9	54.4
≥ 7000	16.7	24.4	27.8	38.6	43.9	44.4	48.3	51.0	51.6	54.2	54.5	54.9	55.7	56.3	57.0	57.5
≥ 6000	16.3	24.7	28.2	39.4	45.0	45.5	49.3	52.1	52.7	55.2	55.6	56.0	56.9	57.4	58.1	58.6
≥ 5000	18.5	27.4	31.3	44.2	50.2	50.7	55.0	57.8	58.5	61.0	61.4	61.7	62.6	63.2	63.9	64.4
≥ 4500	18.9	28.6	32.7	46.3	52.6	53.2	57.5	60.4	61.3	63.8	64.1	64.5	65.3	65.9	66.7	67.1
≥ 4000	19.9	29.7	33.9	48.3	55.5	56.1	60.9	64.0	64.9	67.6	68.1	68.6	69.4	70.0	70.8	71.2
≥ 3500	21.5	30.4	34.7	49.3	56.9	57.5	62.5	65.6	66.4	69.3	69.8	70.3	71.1	71.8	72.6	73.0
≥ 3000	22.1	32.6	37.2	52.5	61.0	61.6	66.8	70.4	71.2	74.5	75.0	75.7	76.5	77.3	78.0	78.5
≥ 2500	22.6	33.1	37.8	53.9	62.7	63.4	68.7	72.4	73.3	76.5	77.0	77.7	78.6	79.3	80.0	80.5
≥ 2000	24.2	35.0	40.1	57.0	66.1	67.0	72.6	76.5	77.5	80.7	81.2	81.9	82.8	83.5	84.2	84.7
≥ 1800	24.4	35.4	40.6	58.0	67.1	68.1	73.6	77.6	78.6	81.8	82.3	83.0	83.9	84.6	85.3	85.8
≥ 1500	24.4	35.7	41.6	59.9	69.2	70.2	76.1	80.4	81.3	84.7	85.2	85.9	86.8	87.5	88.2	88.7
≥ 1200	24.7	36.7	42.6	62.0	71.7	72.8	78.8	83.4	84.5	87.8	88.3	89.0	89.9	90.6	91.3	91.8
≥ 1000	24.7	37.1	43.3	63.4	73.4	74.5	80.7	85.4	86.5	90.0	90.5	91.2	92.1	92.8	93.5	94.0
≥ 900	24.7	37.1	43.4	63.9	73.9	75.0	81.7	86.6	87.7	91.2	91.7	92.4	93.3	94.0	94.7	95.2
≥ 800	24.9	37.2	43.6	64.6	75.0	76.1	83.2	88.1	89.2	92.7	93.1	93.9	94.7	95.4	96.1	96.6
≥ 700	24.8	37.2	43.6	64.6	75.1	76.2	83.5	88.4	89.5	93.0	93.5	94.2	95.1	95.8	96.5	97.0
≥ 600	24.8	37.2	43.6	64.6	75.2	76.3	84.0	89.0	90.1	93.6	94.1	94.8	95.7	96.4	97.1	97.6
≥ 500	24.9	37.2	43.6	64.6	75.3	76.4	84.1	89.2	90.3	93.9	94.3	95.2	96.0	96.8	97.5	98.0
≥ 400	24.8	37.2	43.6	64.6	75.3	76.5	84.4	89.4	90.5	94.2	94.7	95.7	96.5	97.2	98.1	98.6
≥ 300	24.8	37.2	43.6	64.6	75.3	76.5	84.5	89.5	90.6	94.3	94.8	95.8	96.6	97.4	98.2	98.7
≥ 200	24.8	37.2	43.6	64.6	75.3	76.5	84.5	89.5	90.6	94.5	94.9	95.9	96.8	97.7	98.8	99.6
≥ 100	24.8	37.2	43.6	64.6	75.3	76.5	84.5	89.5	90.6	94.5	94.9	95.9	96.8	97.7	98.8	99.7
≥ 0	24.8	37.2	43.6	64.6	75.3	76.5	84.5	89.5	90.6	94.5	94.9	95.9	96.8	97.7	98.8	99.7

TOTAL NUMBER OF OBSERVATIONS 831

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 877 GRAFENHOF AAF DL

73-61

YEAR

UNIT

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

0900-1100

CEILING FEET	VISIBILITY STATUTE MILES															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2.5	≥ 2	≥ 1.5	≥ 1	≥ .75	≥ .5	≥ .25	≥ .1	≥ .05	≥ .01	≥ .001
NO CEILING	17.8	27.8	29.2	32.9	33.2	33.2	33.2	33.6	33.6	33.6	33.6	33.6	33.6	33.6	33.6	33.6
≥ 20000	20.3	32.9	32.6	36.7	37.1	37.1	37.1	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4
≥ 18000	20.3	31.1	32.7	37.2	37.5	37.5	37.5	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9
≥ 16000	20.3	31.1	32.7	37.2	37.5	37.5	37.5	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9	37.9
≥ 14000	20.9	31.5	33.2	37.7	38.0	38.0	38.0	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4	38.4
≥ 12000	22.1	33.1	34.9	39.2	39.6	39.6	39.6	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
≥ 10000	23.4	35.4	37.1	42.4	42.7	42.7	42.7	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1
≥ 9000	24.3	36.6	38.3	43.7	44.0	44.0	44.0	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4	44.4
≥ 8000	27.5	43.1	45.0	50.9	51.5	51.5	51.5	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9	51.9
≥ 7000	30.3	45.2	47.3	53.4	54.0	54.0	54.0	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6
≥ 6000	31.3	45.8	48.0	54.3	54.9	54.9	55.1	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5	55.5
≥ 5000	33.3	49.1	51.3	58.2	59.0	59.0	59.2	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6	59.6
≥ 4500	34.7	50.8	53.1	60.5	61.3	61.3	61.5	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9	61.9
≥ 4000	36.1	52.7	55.1	63.9	64.9	65.0	65.6	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9
≥ 3500	38.4	55.5	58.1	67.1	68.2	68.4	69.1	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4	69.4
≥ 3000	42.9	61.7	65.1	75.1	76.7	76.9	77.6	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2
≥ 2500	44.2	64.0	67.3	77.9	79.5	79.8	80.5	81.1	81.2	81.5	81.5	81.5	81.5	81.5	81.5	81.5
≥ 2000	46.0	67.3	71.2	84.1	86.6	87.0	87.7	88.3	88.4	88.7	88.7	88.7	88.7	88.7	88.7	88.7
≥ 1800	46.2	67.9	71.8	84.8	87.4	87.7	88.6	89.4	89.5	89.8	89.8	89.8	89.8	89.8	89.8	89.8
≥ 1600	47.2	70.5	74.7	89.4	92.1	92.5	93.4	94.3	94.5	94.9	94.9	94.9	94.9	94.9	94.9	94.9
≥ 1400	47.8	71.2	75.9	91.3	94.1	94.6	95.4	96.4	96.5	97.0	97.0	97.0	97.0	97.0	97.0	97.0
≥ 1200	48.1	71.8	76.8	92.8	95.5	96.0	97.0	98.0	98.1	98.6	98.6	98.6	98.6	98.6	98.6	98.6
≥ 1000	48.1	71.8	76.8	92.8	95.5	96.0	97.0	98.0	98.1	98.6	98.6	98.6	98.6	98.6	98.6	98.6
≥ 900	48.1	71.8	76.8	92.8	95.5	96.0	97.0	98.0	98.1	98.6	98.6	98.6	98.6	98.6	98.6	98.6
≥ 800	48.1	72.0	76.9	93.4	96.3	96.8	97.8	98.8	98.9	99.4	99.4	99.4	99.4	99.4	99.4	99.4
≥ 700	48.1	72.0	76.9	93.4	96.4	96.9	98.0	98.9	99.0	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥ 600	48.4	72.2	77.1	93.9	96.9	97.4	98.4	99.4	99.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 500	48.4	72.2	77.1	93.9	96.9	97.4	98.4	99.4	99.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 400	48.4	72.2	77.1	93.9	96.9	97.4	98.4	99.4	99.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 300	48.4	72.2	77.1	93.9	96.9	97.4	98.4	99.4	99.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 200	48.4	72.2	77.1	93.9	96.9	97.4	98.4	99.4	99.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 100	48.4	72.2	77.1	93.9	96.9	97.4	98.4	99.4	99.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	48.4	72.2	77.1	93.9	96.9	97.4	98.4	99.4	99.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 831

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 070 GRAFENWOHR AAF DL

73-81

1973

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1200-1400

CEILING FEET	VISIBILITY, STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	27.5	30.2	31.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5	30.5
≥ 20000	24.5	35.2	35.5	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7	35.7
≥ 18000	24.6	35.3	35.7	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8
≥ 16000	24.6	35.3	35.7	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8
≥ 14000	24.7	35.4	35.8	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9	35.9
≥ 12000	26.0	36.9	37.2	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3
≥ 10000	28.9	40.6	41.1	41.2	41.2	41.2	41.2	41.2	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3
≥ 9000	29.9	42.0	42.5	42.7	42.7	42.7	42.7	42.7	42.8	42.8	42.8	42.8	42.8	42.8	42.8	42.8
≥ 8000	33.7	47.1	48.1	48.8	48.8	48.8	48.8	48.8	48.9	48.9	48.9	48.9	48.9	48.9	48.9	48.9
≥ 7000	35.1	49.8	51.2	52.2	52.2	52.2	52.2	52.2	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3
≥ 6000	35.4	50.4	51.8	52.8	52.8	52.8	52.8	52.8	52.9	52.9	52.9	52.9	52.9	52.9	52.9	52.9
≥ 5000	39.9	55.4	56.9	58.1	58.1	58.1	58.1	58.1	58.2	58.2	58.2	58.2	58.2	58.2	58.2	58.2
≥ 4500	42.4	58.9	61.4	61.6	61.6	61.6	61.6	61.6	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7
≥ 4000	47.3	64.8	66.6	68.8	68.8	68.8	68.8	68.9	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0
≥ 3500	52.8	71.6	73.5	76.0	76.3	76.3	76.5	76.5	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6
≥ 3000	59.2	79.6	82.4	85.4	85.7	85.7	85.9	85.9	86.0	86.0	86.0	86.0	86.0	86.0	86.0	86.0
≥ 2500	60.8	81.9	84.7	89.0	89.4	89.4	89.6	89.8	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
≥ 2000	62.0	83.6	86.7	91.7	92.0	92.0	92.3	92.7	92.9	92.9	92.9	92.9	92.9	92.9	92.9	92.9
≥ 1800	62.0	83.9	87.0	92.7	93.0	93.0	93.3	93.6	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9
≥ 1600	62.7	84.8	88.3	95.4	95.8	95.8	96.3	96.7	97.0	97.0	97.0	97.0	97.0	97.0	97.0	97.0
≥ 1400	62.7	85.1	88.7	96.1	96.6	96.6	97.1	97.6	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
≥ 1200	62.9	85.4	89.1	97.0	97.7	97.7	98.2	98.9	99.2	99.2	99.2	99.2	99.2	99.2	99.2	99.2
≥ 1000	63.1	85.7	89.3	97.6	98.3	98.3	98.8	99.5	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
≥ 900	63.1	85.7	89.3	97.6	98.4	98.4	98.9	99.6	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥ 800	63.0	85.7	89.3	97.7	98.6	98.6	99.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 700	63.0	85.7	89.3	97.7	98.6	98.6	99.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 600	63.0	85.7	89.3	97.7	98.6	98.6	99.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 500	63.0	85.7	89.3	97.7	98.6	98.6	99.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 400	63.0	85.7	89.3	97.7	98.6	98.6	99.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 300	63.0	85.7	89.3	97.7	98.6	98.6	99.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 200	63.0	85.7	89.3	97.7	98.6	98.6	99.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 100	63.0	85.7	89.3	97.7	98.6	98.6	99.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 0	63.0	85.7	89.3	97.7	98.6	98.6	99.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 630

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 570 GRAFENWOHR AAF DL

73-81

1971

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1500-1700

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005
NO FLYING	22.4	32.1	32.3	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5	32.5
≥ 2500	27.7	38.9	39.1	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2
≥ 1800	27.8	39.1	39.1	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.4
≥ 1500	27.9	39.1	39.2	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5
≥ 1400	28.7	39.2	39.4	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6
≥ 1300	28.8	40.0	40.1	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3	40.3
≥ 1200	33.0	45.5	45.8	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2
≥ 1100	33.9	46.8	47.3	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8
≥ 1000	41.2	55.8	56.7	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6
≥ 900	42.7	57.8	58.6	59.9	59.9	59.9	59.9	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
≥ 800	42.3	58.0	58.8	60.3	60.3	60.3	60.4	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6
≥ 700	49.6	65.7	66.9	68.4	68.4	68.4	68.5	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7	68.7
≥ 600	52.3	69.7	71.1	72.7	72.7	72.7	72.8	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0	73.0
≥ 500	58.5	76.3	78.1	80.4	80.4	80.4	80.5	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7	80.7
≥ 450	60.9	79.2	81.1	84.5	84.5	84.6	84.7	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0	85.0
≥ 400	65.1	84.5	87.1	91.1	91.2	91.3	91.5	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7
≥ 350	65.7	85.7	88.8	93.4	93.6	93.7	93.9	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1	94.1
≥ 300	66.8	86.9	91.3	94.9	95.2	95.3	95.4	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7	95.7
≥ 250	66.8	86.9	91.3	94.9	95.2	95.3	95.4	95.5	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8
≥ 200	67.1	87.8	91.5	96.9	97.1	97.2	97.4	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6	97.6
≥ 150	67.1	88.1	91.8	97.5	98.2	98.3	98.7	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9	98.9
≥ 100	67.1	88.1	91.8	98.3	99.2	99.3	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 90	67.1	88.1	91.8	98.3	99.2	99.3	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 80	67.1	88.1	91.8	98.3	99.2	99.3	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 70	67.1	88.1	91.8	98.3	99.2	99.3	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 60	67.1	88.1	91.8	98.3	99.2	99.3	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 50	67.1	88.1	91.8	98.3	99.2	99.3	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 40	67.1	88.1	91.8	98.3	99.2	99.3	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 30	67.1	88.1	91.8	98.3	99.2	99.3	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 20	67.1	88.1	91.8	98.3	99.2	99.3	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥ 10	67.1	88.1	91.8	98.3	99.2	99.3	99.6	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 831

USAF ETAC 1284 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AT- WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 6870 GRAFENWOHR AAF OL

73-81

JUL

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1800-2000

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	31.5	42.7	43.3	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1	44.1
≥2000	36.6	49.7	52.4	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3
≥1800	36.7	49.9	51.7	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5
≥1600	36.7	49.9	52.7	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5
≥1400	36.8	52.1	52.8	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.6
≥1200	37.2	52.4	51.3	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1	52.1
≥1000	40.7	55.1	56.0	56.9	56.9	56.9	57.1	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2	57.2
≥900	41.7	56.2	57.2	58.1	58.1	58.1	58.3	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4
≥800	47.3	63.3	64.4	65.9	66.0	66.0	66.3	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6	66.6
≥700	49.1	65.9	67.3	69.0	69.1	69.1	69.5	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7
≥600	52.1	66.8	68.6	70.3	70.4	70.4	70.8	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
≥500	54.1	71.7	73.3	75.6	75.8	75.8	76.2	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6	76.6
≥450	56.1	74.1	76.4	78.8	78.9	79.1	79.6	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
≥400	52.9	77.7	82.1	83.1	83.2	83.5	84.0	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3	84.3
≥350	67.9	80.1	82.6	86.2	86.4	86.6	87.2	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6	87.6
≥300	63.7	84.0	86.9	91.7	92.0	92.3	93.1	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5
≥250	64.2	84.6	87.7	93.4	93.7	94.0	94.9	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3	95.3
≥200	64.7	85.4	88.7	94.3	94.7	94.9	95.9	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3	96.3
≥180	64.7	85.4	88.7	94.5	94.8	95.1	96.0	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4
≥160	65.3	86.1	89.5	95.5	96.0	96.3	97.2	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9
≥140	65.3	86.1	89.5	95.8	96.4	96.6	97.6	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3
≥120	65.3	86.2	89.6	96.7	97.3	97.6	98.6	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
≥100	65.3	86.2	89.6	96.7	97.5	97.7	98.7	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
≥90	65.3	86.2	89.6	96.7	97.7	97.9	98.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥80	65.3	86.2	89.6	96.7	97.7	97.9	98.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥70	65.3	86.2	89.6	96.7	97.7	97.9	98.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥60	65.3	86.2	89.6	96.7	97.7	97.9	98.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥50	65.3	86.2	89.6	96.7	97.7	97.9	98.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥40	65.3	86.2	89.6	96.7	97.7	97.9	98.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥30	65.3	86.2	89.6	96.7	97.7	97.9	98.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥20	65.3	86.2	89.6	96.7	97.7	97.9	98.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
≥10	65.3	86.2	89.6	96.7	97.7	97.9	98.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 829

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION GRAFENWOHR AAF DL

73-81

JUL

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

ALL

CEILING FEET	VISIBILITY - STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO. OF OBS.	14.5	26.8	30.6	34.3	35.2	35.3	36.5	37.0	37.1	37.8	38.7	38.1	38.4	39.5	38.7	38.6
≥2000	22.3	32.5	34.6	38.8	39.7	39.9	41.1	41.7	41.8	42.6	42.7	42.8	43.1	43.3	43.5	43.6
≥1800	22.3	32.6	34.7	38.9	39.9	40.0	41.3	41.9	41.9	42.7	42.9	43.0	43.3	43.5	43.6	43.7
≥1600	22.5	32.7	34.8	39.1	40.0	40.2	41.4	42.0	42.1	42.9	43.0	43.2	43.4	43.6	43.8	43.9
≥1400	23.1	33.4	35.5	40.0	41.0	41.1	42.4	43.0	43.0	43.8	44.0	44.1	44.4	44.5	44.7	44.8
≥1200	25.6	36.9	39.3	44.0	45.2	45.4	46.8	47.5	47.6	48.4	48.5	48.6	48.9	49.1	49.3	49.4
≥1000	26.5	39.1	42.5	45.4	46.7	46.9	48.3	49.0	49.1	49.9	50.0	51.2	51.5	51.6	51.8	51.9
≥800	31.7	43.9	46.6	52.2	53.7	53.9	55.6	56.5	56.6	57.6	57.7	57.9	58.2	58.4	58.6	58.7
≥600	32.2	46.0	48.9	55.1	56.6	56.8	58.6	59.6	59.7	60.7	60.8	61.0	61.3	61.5	61.7	61.8
≥400	36.4	51.5	55.1	61.8	63.6	63.7	65.8	66.7	66.9	67.9	68.0	68.2	68.5	68.8	69.0	69.1
≥200	37.9	53.9	57.5	64.8	66.6	66.8	68.9	69.9	70.0	71.0	71.2	71.3	71.7	71.9	72.1	72.3
≥100	40.3	56.9	60.7	68.8	70.9	71.2	73.4	74.4	74.6	75.6	75.8	76.0	76.3	76.6	76.8	76.9
≥50	42.3	59.3	63.2	71.9	74.1	74.4	76.8	77.9	78.0	79.1	79.3	79.4	79.8	80.1	80.3	80.4
≥25	45.4	63.4	68.0	77.6	80.1	80.4	83.0	84.3	84.4	85.5	85.8	85.9	86.3	86.6	86.8	86.9
≥15	46.1	64.5	69.2	79.7	82.3	82.7	85.4	86.7	86.9	88.1	88.3	88.5	88.8	89.1	89.3	89.4
≥10	47.1	65.9	70.8	82.0	84.8	85.2	88.0	89.4	89.7	90.8	91.0	91.2	91.5	91.8	92.0	92.2
≥5	47.1	66.1	71.0	82.5	85.3	85.7	88.6	90.0	90.2	91.3	91.6	91.7	92.1	92.4	92.6	92.7
≥3	47.5	66.9	72.2	84.5	87.5	87.9	90.8	92.5	92.8	94.0	94.2	94.4	94.7	95.0	95.2	95.4
≥2	47.7	67.3	72.6	85.5	88.7	89.2	92.2	94.0	94.2	95.4	95.6	95.8	96.2	96.5	96.7	96.8
≥1	47.7	67.5	73.1	86.4	89.7	90.1	93.3	95.1	95.3	96.6	96.8	97.0	97.4	97.7	97.9	98.0
≥0.5	47.7	67.5	73.1	86.5	89.8	90.3	93.6	95.4	95.7	96.9	97.1	97.3	97.7	98.0	98.2	98.3
≥0.25	47.8	67.6	73.1	86.8	90.2	90.7	94.1	96.0	96.3	97.5	97.7	97.9	98.3	98.6	98.8	98.9
≥0.15	47.8	67.6	73.1	86.8	90.3	90.8	94.2	96.1	96.4	97.6	97.8	98.0	98.4	98.7	93.9	99.0
≥0.1	47.8	67.6	73.1	86.9	90.4	90.9	94.4	96.3	96.6	97.9	98.1	98.3	98.7	99.0	99.2	99.3
≥0.05	47.8	67.6	73.1	86.9	90.4	90.9	94.4	96.4	96.6	97.9	98.2	98.4	98.8	99.0	99.2	99.4
≥0.025	47.8	67.6	73.1	86.9	90.4	90.9	94.5	96.4	96.7	98.0	98.3	98.5	98.9	99.2	99.4	99.5
≥0.015	47.8	67.6	73.1	86.9	90.4	90.9	94.5	96.5	96.8	98.1	98.4	98.6	99.0	99.3	99.5	99.7
≥0.01	47.8	67.6	73.1	86.9	90.4	90.9	94.5	96.5	96.8	98.1	98.4	98.6	99.0	99.3	99.6	99.9
≥0.005	47.8	67.6	73.1	86.9	90.4	90.9	94.5	96.5	96.8	98.1	98.4	98.6	99.0	99.3	99.7	100.0

TOTAL NUMBER OF OBSERVATIONS 6642

USAF ETAC FORM 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 877 GRAFENWOHR AAF DL

73-61

AUG

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1000-2200

CEILING FEET	VISIBILITY STATUTE MILES															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2.5	≥ 2	≥ 1.5	≥ 1	≥ .5	≥ .25	≥ .1	≥ .05	≥ .025	≥ .01	≥ 0
NO CEILING	23.3	37.3	41.2	49.2	51.4	51.6	53.9	55.4	55.6	56.6	57.2	57.3	57.9	58.9	59.3	59.5
≥ 20000	24.5	38.9	43.5	53.3	55.8	56.0	58.5	60.1	60.2	61.3	61.9	62.0	62.6	63.6	63.9	64.2
≥ 18000	24.5	38.9	43.5	53.9	56.4	56.6	59.1	60.8	60.9	62.1	62.7	62.8	63.4	64.4	64.8	65.7
≥ 16000	24.5	38.9	43.5	53.9	56.4	56.6	59.1	60.8	60.9	62.1	62.7	62.8	63.4	64.4	64.8	65.0
≥ 14000	24.6	39.1	43.6	54.0	56.5	56.8	59.3	60.9	61.1	62.2	62.8	63.0	63.6	64.5	64.9	65.1
≥ 12000	24.7	39.5	44.1	54.5	57.0	57.2	59.7	61.4	61.5	62.7	63.3	63.4	64.2	65.0	65.4	65.6
≥ 10000	26.4	42.2	46.8	57.3	59.9	60.2	63.0	64.6	64.8	66.2	66.8	66.9	67.5	68.5	68.8	69.1
≥ 9000	26.8	42.7	47.6	58.1	60.6	60.9	63.8	65.5	65.6	67.0	67.6	67.7	68.3	69.3	69.9	70.1
≥ 8000	28.1	44.8	51.3	62.6	65.2	65.7	68.6	70.5	70.7	72.3	72.9	73.0	73.6	74.7	75.3	75.5
≥ 7000	28.4	45.2	51.5	64.0	66.7	67.1	70.0	71.9	72.2	73.7	74.3	74.4	75.0	76.1	76.7	76.9
≥ 6000	28.6	45.3	51.7	64.4	67.0	67.5	70.4	72.4	72.8	74.3	74.9	75.1	75.7	76.8	77.4	77.7
≥ 5000	30.7	48.4	55.6	68.5	71.1	71.6	74.7	76.8	77.2	78.9	79.5	79.7	80.3	81.4	82.1	82.3
≥ 4500	31.4	49.5	56.8	70.0	72.9	73.5	76.8	79.0	79.3	81.0	81.6	81.8	82.4	83.5	84.7	84.5
≥ 4000	32.7	50.4	58.2	72.2	75.0	75.6	79.0	81.1	81.5	83.3	83.9	84.1	84.7	85.8	86.5	86.7
≥ 3500	32.5	52.0	59.9	74.0	76.8	77.4	81.0	83.5	83.9	85.8	86.4	86.6	87.2	88.3	89.7	89.2
≥ 3000	33.1	53.3	61.4	75.9	78.9	79.6	83.4	86.0	86.4	88.3	89.1	89.4	90.0	91.0	91.8	92.0
≥ 2500	33.3	53.5	61.8	76.7	79.8	80.6	84.8	87.5	87.8	89.7	90.6	90.8	91.4	92.5	93.2	93.4
≥ 2000	33.7	53.9	62.4	77.5	80.6	81.5	85.9	88.5	88.9	90.8	91.6	91.9	92.5	93.5	94.3	94.5
≥ 1800	33.7	53.9	62.5	77.8	80.9	81.7	87.1	89.7	90.1	92.0	92.8	93.1	93.7	94.7	95.5	95.7
≥ 1600	33.7	53.9	62.5	77.8	80.9	81.7	87.1	89.7	90.1	92.0	92.8	93.1	93.7	94.7	95.5	95.7
≥ 1400	33.7	53.9	62.5	77.8	80.9	81.7	87.1	89.7	90.1	92.0	92.8	93.1	93.7	94.7	95.5	95.7
≥ 1200	33.7	53.9	62.5	77.8	80.9	81.7	87.1	89.7	90.1	92.0	92.8	93.1	93.7	94.7	95.5	95.7
≥ 1000	33.7	54.0	62.8	78.7	81.8	82.7	88.6	91.8	92.1	94.0	94.9	95.1	95.7	96.8	97.5	97.7
≥ 900	33.7	54.0	62.8	78.7	82.1	82.9	89.0	92.1	92.5	94.4	95.2	95.5	96.1	97.1	97.8	98.1
≥ 800	33.7	54.0	62.8	78.7	82.1	82.9	89.0	92.1	92.5	94.4	95.2	95.5	96.1	97.1	97.8	98.1
≥ 700	33.7	54.0	62.8	78.7	82.1	82.9	89.0	92.1	92.5	94.4	95.2	95.5	96.1	97.1	97.8	98.1
≥ 600	33.7	54.0	62.8	78.9	82.2	83.0	89.2	92.4	92.7	94.6	95.5	95.7	96.3	97.4	98.1	98.3
≥ 500	33.7	54.0	62.8	78.9	82.2	83.0	89.2	92.4	92.7	94.6	95.5	95.7	96.3	97.4	98.1	98.3
≥ 400	33.7	54.0	62.8	78.9	82.2	83.0	89.2	92.4	92.7	94.6	95.5	95.7	96.3	97.4	98.1	98.3
≥ 300	33.7	54.0	62.8	78.9	82.2	83.0	89.2	92.4	92.7	94.6	95.5	95.7	96.3	97.4	98.1	98.3
≥ 200	33.7	54.0	62.8	78.9	82.2	83.0	89.2	92.4	92.7	94.6	95.5	95.7	96.3	97.4	98.1	98.3
≥ 100	33.7	54.0	62.8	78.9	82.2	83.0	89.2	92.4	92.7	94.6	95.5	95.7	96.3	97.4	98.1	98.3
≥ 50	33.7	54.0	62.8	78.9	82.2	83.0	89.2	92.4	92.7	94.6	95.5	95.7	96.3	97.4	98.1	98.3

TOTAL NUMBER OF OBSERVATIONS 837

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

16870 GRAFENWOHR AAF DL

73-81

AUG

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1300-2500

CEILING FEET	VISIBILITY - STATUTE MILES															
	≥10	≥8	≥6	≥4	≥3	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	13.7	20.4	26.2	35.8	37.4	37.5	42.1	43.8	44.6	47.6	47.7	47.9	49.3	51.3	51.9	53.3
≥ 20000	14.7	21.6	27.6	37.5	39.1	39.2	43.8	46.0	46.7	49.9	50.1	50.3	51.7	53.6	54.2	55.7
≥ 18000	14.7	21.6	27.6	38.0	39.5	39.7	44.3	46.5	47.2	50.4	50.5	50.8	52.2	54.1	54.7	56.2
≥ 16000	14.7	21.6	27.6	38.0	39.5	39.7	44.3	46.5	47.2	50.4	50.5	50.8	52.2	54.1	54.7	56.2
≥ 14000	14.0	21.6	27.6	38.0	39.5	39.7	44.3	46.5	47.2	50.4	50.5	50.8	52.2	54.1	54.7	56.2
≥ 12000	14.0	21.7	27.7	38.2	39.8	39.9	44.7	47.0	47.7	50.9	51.0	51.3	52.7	54.6	55.3	56.9
≥ 10000	15.1	23.4	30.0	40.9	42.5	42.7	47.4	49.7	50.4	53.8	53.9	54.1	55.6	57.9	58.7	60.3
≥ 9000	15.7	24.1	30.9	42.2	43.8	44.0	48.7	51.0	51.9	55.2	55.3	55.6	57.0	59.4	60.2	61.9
≥ 8000	16.5	26.5	33.7	47.3	49.8	49.9	55.1	57.6	58.5	62.1	62.5	63.0	64.4	66.6	67.6	69.3
≥ 7000	16.7	26.8	33.9	47.9	50.4	50.5	55.7	58.2	59.3	62.8	63.2	63.7	65.1	67.5	68.3	70.0
≥ 6000	16.7	26.8	34.1	48.0	50.5	50.7	55.8	58.3	59.6	63.3	63.7	64.2	65.6	68.0	68.8	70.5
≥ 5000	17.9	29.4	37.3	52.0	54.5	54.6	60.3	63.0	64.3	68.2	68.7	69.2	70.6	73.2	74.1	75.7
≥ 4500	18.6	30.2	38.2	53.5	56.4	56.5	62.7	65.4	67.0	71.1	71.6	72.0	73.5	76.1	76.9	78.6
≥ 4000	19.1	30.7	38.9	54.7	57.8	57.9	64.3	66.9	68.6	72.9	73.4	73.8	75.3	77.9	78.7	80.4
≥ 3500	19.7	31.5	40.0	56.3	59.6	59.7	66.3	69.3	71.1	75.7	76.2	76.7	78.1	80.8	81.6	83.3
≥ 3000	20.3	32.5	41.7	58.4	61.8	62.0	68.7	72.2	74.0	78.7	79.2	79.7	81.1	83.9	84.7	86.4
≥ 2500	20.9	33.1	42.3	59.4	63.1	63.3	70.1	73.6	75.4	80.2	80.6	81.1	82.6	85.3	86.1	87.8
≥ 2000	21.4	33.7	43.0	60.5	64.2	64.4	71.7	75.3	77.3	82.1	82.6	83.2	84.5	87.2	88.1	89.7
≥ 1800	21.4	33.8	43.2	60.7	64.5	64.8	72.0	75.6	77.7	82.4	82.9	83.4	84.8	87.6	88.4	90.1
≥ 1500	21.5	33.9	43.6	61.3	65.1	65.4	73.0	76.7	78.7	83.5	84.0	84.5	85.9	88.6	89.5	91.2
≥ 1200	21.7	34.4	44.3	62.4	66.2	66.4	74.4	78.1	80.2	84.9	85.4	85.9	87.3	90.1	90.9	92.6
≥ 1000	21.9	34.6	44.9	63.3	67.3	67.5	76.0	79.8	81.8	86.6	87.1	87.6	89.1	91.9	92.7	94.4
≥ 900	21.9	34.6	44.9	63.4	67.4	67.6	76.1	80.0	82.1	86.9	87.3	87.8	89.4	92.1	93.0	94.6
≥ 800	22.0	34.8	45.0	63.6	67.5	67.7	76.2	80.3	82.3	87.2	87.7	88.2	89.7	92.5	93.3	95.0
≥ 700	22.0	34.8	45.0	63.6	67.5	67.7	76.6	80.6	82.7	87.6	88.1	88.8	90.3	93.1	93.9	95.7
≥ 600	22.0	34.8	45.0	63.6	67.5	67.7	76.6	80.6	82.7	87.6	88.1	88.8	90.3	93.1	93.9	95.7
≥ 500	22.0	34.8	45.0	63.6	67.5	67.7	76.6	80.6	82.7	87.6	88.1	88.8	90.3	93.1	93.9	95.7
≥ 400	22.0	34.8	45.0	63.6	67.5	67.7	76.9	81.0	83.2	88.2	88.6	89.4	91.8	94.9	95.9	98.4
≥ 300	22.0	34.8	45.0	63.6	67.5	67.7	76.9	81.0	83.2	88.2	88.6	89.4	91.8	94.9	95.9	98.4
≥ 200	22.0	34.8	45.0	63.6	67.5	67.7	76.9	81.0	83.2	88.2	88.6	89.4	91.8	94.9	95.9	98.4
≥ 100	22.0	34.8	45.0	63.6	67.5	67.7	76.9	81.0	83.2	88.2	88.6	89.4	91.8	94.9	95.9	98.4
≥ 0	22.0	34.8	45.0	63.6	67.5	67.7	76.9	81.0	83.2	88.2	88.6	89.4	91.8	94.9	95.9	98.4

TOTAL NUMBER OF OBSERVATIONS 837

USAF ETAC FORM 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AT WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1. 37. GRAFENWOHR AAF, DL

73-61

AUG

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

3600-5800

CEILING FEET	VISIBILITY, STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥2	≥2	≥2	≥2	≥2	≥2	≥2	≥2	≥2
NO CEILING	8.1	13.7	17.8	25.9	30.9	31.8	35.6	38.5	39.1	41.0	41.9	42.3	43.1	44.7	44.3	45.3
≥ 20000	8.5	15.1	19.6	29.0	34.3	35.1	38.4	42.7	43.2	45.3	46.2	46.6	47.6	48.6	49.1	50.1
W 18000	8.6	15.2	19.7	29.5	34.9	35.7	40.0	43.2	43.8	45.9	46.8	47.2	48.1	49.2	49.7	50.7
W 16000	8.6	15.2	19.7	29.5	35.0	35.8	40.1	43.4	44.0	46.0	47.0	47.3	48.3	49.3	49.8	50.8
W 14000	8.6	15.2	19.7	29.5	35.1	36.0	40.3	43.5	44.1	46.1	47.1	47.4	48.4	49.5	49.9	50.9
W 12000	8.6	15.2	19.8	29.7	35.6	36.4	40.9	44.3	44.9	47.1	48.0	48.4	49.3	50.4	50.9	51.9
W 10000	9.3	16.2	21.1	32.3	38.6	39.7	44.3	47.8	48.5	50.8	51.7	52.1	53.0	54.2	55.0	56.0
W 9000	9.3	16.5	21.5	33.1	39.7	40.7	45.5	49.1	49.9	52.2	53.2	53.5	54.6	55.8	56.6	57.7
W 8000	9.6	17.6	23.5	36.7	44.1	45.2	51.4	55.3	56.3	58.9	60.0	60.6	61.6	63.0	63.9	64.9
W 7000	9.7	17.8	23.8	37.3	44.7	45.8	52.1	56.4	57.5	60.1	61.2	61.8	62.8	64.2	65.0	66.2
W 6000	9.7	17.9	23.9	37.4	44.8	45.9	52.3	56.6	57.7	60.3	61.4	62.0	63.1	64.4	65.2	66.4
W 5000	10.0	18.6	24.9	39.1	46.6	47.8	55.0	59.5	60.6	63.4	64.8	65.4	66.5	67.9	68.7	69.9
W 4500	10.2	19.4	26.0	40.9	48.5	49.9	57.5	62.4	63.6	66.5	67.9	69.5	69.7	71.0	71.8	73.0
W 4000	11.4	20.8	27.5	43.0	50.8	52.2	60.0	64.9	66.1	69.2	70.6	71.2	72.4	73.8	74.7	75.9
W 3500	11.7	21.6	28.4	44.3	52.3	53.9	61.5	66.7	67.9	71.0	72.4	73.0	74.2	75.6	76.5	77.7
W 3000	12.3	22.9	29.7	46.4	54.6	56.0	64.0	69.9	71.1	74.3	75.7	76.3	77.9	79.3	80.2	81.4
W 2500	13.7	24.3	31.1	48.0	56.3	57.8	66.3	72.2	73.4	76.6	78.3	78.9	80.4	81.8	82.7	83.9
W 2000	15.1	25.9	33.0	50.4	58.7	60.2	69.1	75.3	76.6	79.9	81.6	82.3	83.9	85.3	86.1	87.3
W 1800	15.3	26.3	33.3	50.8	59.0	60.6	69.5	75.7	77.1	80.4	82.1	82.8	84.3	85.8	86.6	87.8
W 1600	15.9	26.9	33.9	51.9	60.3	61.9	71.0	77.5	78.9	82.4	84.2	84.9	86.7	88.2	89.0	90.2
W 1400	16.0	27.6	35.0	53.3	61.9	63.4	72.6	79.3	80.6	84.3	86.3	87.0	88.8	90.2	91.0	92.2
W 1200	16.1	27.6	35.2	53.6	62.4	63.9	73.4	80.3	81.6	85.3	87.2	88.1	90.0	91.4	92.2	93.4
W 1000	16.1	27.7	35.4	54.1	62.8	64.4	73.8	80.9	82.2	85.9	87.9	88.8	90.7	92.1	93.0	94.1
W 900	16.4	28.1	35.7	54.5	63.2	64.8	74.3	81.5	83.0	86.9	88.9	89.7	91.6	93.2	94.0	95.2
W 800	16.4	28.1	35.7	54.5	63.3	64.9	75.0	82.2	83.8	87.7	89.7	90.6	92.5	94.0	94.9	96.2
W 700	16.4	28.1	35.7	54.5	63.3	64.9	75.0	82.2	83.8	87.8	89.8	90.7	92.6	94.1	95.0	96.3
W 600	16.4	28.1	35.7	54.5	63.3	65.0	75.1	82.3	83.9	88.1	90.1	91.0	93.0	94.5	95.7	97.0
W 500	16.4	28.1	35.7	54.5	63.3	65.0	75.1	82.3	83.9	88.2	90.2	91.2	93.1	94.7	96.1	97.5
W 400	16.4	28.1	35.7	54.5	63.3	65.0	75.1	82.3	83.9	88.2	90.2	91.2	93.1	95.1	96.4	98.3
W 300	16.4	28.1	35.7	54.5	63.3	65.0	75.1	82.3	83.9	88.2	90.2	91.2	93.1	95.2	97.0	99.6
W 200	16.4	28.1	35.7	54.5	63.3	65.0	75.1	82.3	83.9	88.2	90.2	91.2	93.1	95.3	97.1	100.0

TOTAL NUMBER OF OBSERVATIONS 837

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 6770 GRAFENWÖHR AAF DL

73-61

AND

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1952-1953

CEILING FEET	VISIBILITY - STATUTE MILES															
	≥10	≥8	≥5	≥4	≥3	≥2	≥1	≥1/2	≥1/4	≥1/8	≥1/16	≥1/32	≥1/64	≥1/128	≥1/256	≥1/512
NO CEILING	22.1	35.1	37.3	47.8	45.3	45.5	45.6	45.9	46.0	46.0	46.7	46.0	46.1	46.1	46.1	46.1
≥20000	23.3	37.6	47.8	48.5	57.9	51.1	51.3	51.5	51.6	51.6	51.6	51.6	51.7	51.7	51.7	51.7
≥18000	23.5	33.2	47.6	49.5	51.9	52.1	52.2	52.4	52.6	52.6	52.6	52.6	52.7	52.7	52.7	52.7
≥16000	23.8	38.5	47.9	49.8	52.2	52.4	52.6	52.8	52.9	52.9	52.9	52.9	53.0	53.0	53.0	53.0
≥14000	23.8	38.6	41.7	50.1	52.4	52.7	52.8	53.0	53.2	53.2	53.2	53.2	53.3	53.3	53.3	53.3
≥12000	24.1	39.3	41.8	51.5	53.9	54.1	54.2	54.5	54.6	54.6	54.6	54.6	54.7	54.7	54.7	54.7
≥10000	25.1	40.9	43.5	53.2	55.7	55.9	56.0	56.4	56.5	56.6	56.6	56.6	56.8	56.9	56.9	56.9
≥9000	25.6	41.3	44.1	54.5	57.1	57.3	57.5	57.8	57.9	58.1	58.1	58.1	58.2	58.3	58.3	58.3
≥8000	28.2	45.3	49.9	60.8	64.4	64.8	65.2	65.6	65.7	65.9	65.9	65.9	66.1	66.2	66.2	66.2
≥7000	29.3	46.1	49.8	62.1	65.7	66.2	66.8	67.1	67.5	67.7	67.7	67.7	67.9	68.1	68.1	68.1
≥6000	29.8	46.6	50.3	62.6	66.2	66.7	67.3	67.6	68.0	68.2	68.2	68.2	68.3	68.5	68.5	68.5
≥5000	29.3	47.2	51.1	63.9	67.9	68.3	69.1	69.4	69.8	70.0	70.2	70.2	70.3	70.3	70.3	70.3
≥4500	30.3	44.5	52.6	66.2	71.4	71.8	71.7	72.0	72.4	72.6	72.6	72.6	72.8	72.9	72.9	72.9
≥4000	32.5	51.7	55.2	69.4	73.6	74.1	74.9	75.4	75.7	76.1	76.1	76.1	76.2	76.3	76.3	76.3
≥3500	33.4	52.8	57.3	72.4	76.8	77.3	78.3	78.9	79.2	79.6	79.6	79.6	79.7	79.8	79.8	79.8
≥3000	37.2	57.3	62.2	77.9	82.3	82.8	83.9	84.5	84.8	85.3	85.3	85.3	85.4	85.5	85.5	85.5
≥2500	38.9	59.6	64.6	80.6	85.2	85.7	86.9	87.5	87.8	88.3	88.3	88.3	88.4	88.5	88.5	88.5
≥2000	39.9	60.9	65.9	82.7	87.5	87.9	89.4	90.1	90.6	91.0	91.0	91.0	91.3	91.4	91.5	91.5
≥1800	40.3	61.3	66.3	83.2	88.1	88.5	90.0	90.9	91.4	91.9	91.9	92.1	92.2	92.4	92.4	92.4
≥1500	40.9	62.5	67.6	84.8	89.8	90.3	91.8	92.7	93.3	93.8	93.8	94.0	94.1	94.3	94.3	94.3
≥1200	41.1	63.0	69.3	85.7	90.7	91.2	92.7	93.7	94.3	94.7	94.7	95.0	95.1	95.2	95.2	95.2
≥1000	41.2	63.2	68.7	86.3	91.5	92.1	93.8	94.7	95.5	95.9	95.9	96.4	96.5	96.7	96.7	96.7
≥900	41.2	63.2	68.7	86.7	92.1	92.7	94.5	95.5	96.2	96.7	96.7	97.1	97.3	97.4	97.4	97.4
≥800	41.2	63.3	68.8	87.1	92.5	93.1	95.2	96.2	96.9	97.4	97.4	97.8	98.0	98.1	98.1	98.1
≥700	41.2	63.3	68.8	87.2	92.7	93.3	95.5	96.4	97.1	97.7	97.7	98.2	98.3	98.4	98.4	98.4
≥600	41.2	63.3	68.8	87.2	92.7	93.3	95.6	96.5	97.3	97.8	97.8	98.3	98.4	98.6	98.6	98.6
≥500	41.2	63.3	68.8	87.2	92.7	93.4	95.7	96.8	97.5	98.2	98.3	98.8	98.9	99.2	99.2	99.2
≥400	41.2	63.3	68.8	87.2	92.8	93.5	95.9	97.0	97.7	98.6	98.7	99.2	99.3	99.5	99.5	99.5
≥300	41.2	63.3	68.8	87.2	92.8	93.5	95.9	97.0	97.7	98.7	98.9	99.4	99.6	100.0	100.0	100.0
≥200	41.2	63.3	68.8	87.2	92.8	93.5	95.9	97.0	97.7	98.7	98.9	99.4	99.6	100.0	100.0	100.0
≥100	41.2	63.3	68.8	87.2	92.8	93.5	95.9	97.0	97.7	98.7	98.9	99.4	99.6	100.0	100.0	100.0
≥50	41.2	63.3	68.8	87.2	92.8	93.5	95.9	97.0	97.7	98.7	98.9	99.4	99.6	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 877

USAF ETAC FORM 64 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 1477 GRAFENWOHR AAF DL

73-81

AUG

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1200-1400

CEILING FEET	VISIBILITY, STATUTE MILES															
	≥10	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
NO CEILING	31.3	40.3	41.3	40.5	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6	42.6
2 20000	35.2	46.7	48.1	50.1	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5	50.5
2 18000	35.3	47.5	48.8	51.7	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3
2 16000	35.3	47.5	48.8	51.0	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3	51.3
2 14000	35.9	47.6	48.9	51.2	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.6	51.6
2 12000	36.4	48.3	49.6	51.9	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3	52.3
2 10000	37.7	50.1	51.6	53.8	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.4
2 9000	39.6	51.6	53.0	55.7	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3
2 8000	42.5	56.8	58.5	62.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8
2 7000	43.3	58.5	60.4	65.0	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1	66.1
2 6000	44.4	59.1	61.0	65.9	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
2 5000	45.1	60.5	62.4	67.8	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0
2 4500	46.3	62.1	64.1	70.1	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3	71.3
2 4000	50.4	66.7	68.9	75.8	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2
2 3500	53.3	72.7	74.2	81.5	82.8	82.8	82.8	82.8	82.8	82.8	82.8	83.1	83.1	83.1	83.1	83.1
2 3000	59.9	79.9	82.5	90.4	91.9	91.9	92.0	92.1	92.1	92.1	92.1	92.5	92.5	92.5	92.5	92.5
2 2500	61.5	81.8	84.7	92.7	94.4	94.6	94.9	95.0	95.0	95.0	95.0	95.3	95.3	95.3	95.3	95.3
2 2000	62.0	82.3	85.3	93.8	95.8	96.1	96.3	96.8	96.8	96.8	96.8	97.1	97.1	97.1	97.1	97.1
2 1800	62.1	82.7	85.6	94.4	96.4	96.7	96.9	97.4	97.4	97.4	97.4	97.7	97.7	97.7	97.7	97.7
2 1600	62.3	82.9	85.9	95.1	97.1	97.4	97.6	98.1	98.1	98.1	98.1	98.4	98.4	98.4	98.4	98.4
2 1400	62.9	83.5	86.5	96.1	98.1	98.3	98.6	99.0	99.0	99.0	99.0	99.4	99.4	99.4	99.4	99.4
2 1200	63.2	83.7	86.7	96.5	98.6	98.8	99.0	99.5	99.5	99.5	99.5	99.9	99.9	99.9	99.9	99.9
2 1000	63.2	83.7	86.7	96.5	98.7	98.9	99.2	99.6	99.6	99.6	99.6	100.0	100.0	100.0	100.0	100.0
2 900	63.2	83.7	86.7	96.5	98.7	98.9	99.2	99.6	99.6	99.6	99.6	100.0	100.0	100.0	100.0	100.0
2 800	63.2	83.7	86.7	96.5	98.7	98.9	99.2	99.6	99.6	99.6	99.6	100.0	100.0	100.0	100.0	100.0
2 700	63.2	83.7	86.7	96.5	98.7	98.9	99.2	99.6	99.6	99.6	99.6	100.0	100.0	100.0	100.0	100.0
2 600	63.2	83.7	86.7	96.5	98.7	98.9	99.2	99.6	99.6	99.6	99.6	100.0	100.0	100.0	100.0	100.0
2 500	63.2	83.7	86.7	96.5	98.7	98.9	99.2	99.6	99.6	99.6	99.6	100.0	100.0	100.0	100.0	100.0
2 400	63.2	83.7	86.7	96.5	98.7	98.9	99.2	99.6	99.6	99.6	99.6	100.0	100.0	100.0	100.0	100.0
2 300	63.2	83.7	86.7	96.5	98.7	98.9	99.2	99.6	99.6	99.6	99.6	100.0	100.0	100.0	100.0	100.0
2 200	63.2	83.7	86.7	96.5	98.7	98.9	99.2	99.6	99.6	99.6	99.6	100.0	100.0	100.0	100.0	100.0
2 150	63.2	83.7	86.7	96.5	98.7	98.9	99.2	99.6	99.6	99.6	99.6	100.0	100.0	100.0	100.0	100.0
2 100	63.2	83.7	86.7	96.5	98.7	98.9	99.2	99.6	99.6	99.6	99.6	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 176

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 1 73-81 GRAFENWOHR AAF DL

73-81

ALL

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1500-1700

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
≥10000	34.7	44.4	45.2	46.3	46.3	46.3	46.3	46.3	46.3	46.3	46.3	46.3	46.3	46.3	46.3	46.3
≥8000	38.9	51.7	52.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7	53.7
≥6000	39.7	52.7	53.1	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8	54.8
≥4000	41.7	52.3	53.3	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0	55.0
≥2000	47.7	53.2	54.3	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1
≥1000	42.3	55.7	56.8	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7	58.7
≥800	43.4	57.2	58.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3
≥600	49.2	62.8	64.2	67.5	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6	67.6
≥400	51.7	65.4	67.2	70.9	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
≥200	51.2	66.7	67.8	71.5	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8	71.8
≥100	54.5	71.2	73.3	77.5	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8
≥80	59.7	77.9	81.7	85.0	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	86.0	86.0	86.0
≥60	62.4	81.1	83.6	88.6	89.5	89.5	89.7	89.7	89.7	89.7	90.0	90.0	90.1	90.2	90.2	90.2
≥40	65.8	85.5	88.3	94.1	95.1	95.1	95.3	95.7	95.7	95.7	95.9	95.9	96.1	96.2	96.2	96.2
≥20	66.1	85.9	88.6	94.5	95.7	95.7	95.9	96.3	96.3	96.5	96.5	96.7	96.8	96.8	96.8	96.8
≥10	66.5	86.7	89.6	95.6	97.1	97.1	97.4	98.1	98.1	98.3	98.3	98.4	98.6	98.6	98.6	98.6
≥8	66.6	86.8	89.7	95.8	97.4	97.4	97.6	98.3	98.3	98.6	98.6	98.7	98.8	98.8	98.8	98.8
≥6	66.7	87.0	89.8	96.2	97.7	97.7	98.0	98.7	98.7	98.9	98.9	99.0	99.2	99.2	99.2	99.2
≥4	67.1	87.3	90.2	96.5	98.1	98.1	98.4	99.2	99.2	99.4	99.4	99.5	99.6	99.6	99.6	99.6
≥2	67.3	87.3	90.2	96.5	98.1	98.1	98.4	99.2	99.2	99.4	99.4	99.5	99.6	99.6	99.6	99.6
≥1	67.3	87.7	90.6	96.9	98.4	98.4	98.8	99.5	99.5	99.8	99.8	99.9	100.0	100.0	100.0	100.0
≥0.8	67.3	87.7	90.6	96.9	98.4	98.4	98.8	99.5	99.5	99.8	99.8	99.9	100.0	100.0	100.0	100.0
≥0.6	67.3	87.7	90.6	96.9	98.4	98.4	98.8	99.5	99.5	99.8	99.8	99.9	100.0	100.0	100.0	100.0
≥0.4	67.3	87.7	90.6	96.9	98.4	98.4	98.8	99.5	99.5	99.8	99.8	99.9	100.0	100.0	100.0	100.0
≥0.2	67.3	87.7	90.6	96.9	98.4	98.4	98.8	99.5	99.5	99.8	99.8	99.9	100.0	100.0	100.0	100.0
≥0.1	67.3	87.7	90.6	96.9	98.4	98.4	98.8	99.5	99.5	99.8	99.8	99.9	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 536

GENERAL CLIMATOLOGY BRANCH
 WFFETAC
 AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION GRAFENWOHR AAF DL

73-81

DATE

PERCENTAGE FREQUENCY OF OCCURRENCE
 (FROM HOURLY OBSERVATIONS)

1800-2000

CEILING FEET	VISIBILITY STATUTE MILES															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2.5	≥ 2	≥ 1.5	≥ 1	≥ .75	≥ .5	≥ .25	≥ .1	≥ .05	≥ .01	≥ 0
NO CEILING	31.3	42.8	44.3	46.1	45.1	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2	46.2
≥ 20000	37.9	51.3	53.9	56.5	56.9	57.7	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
≥ 18000	37.9	51.3	53.9	56.5	56.9	57.7	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
≥ 16000	37.9	51.3	53.9	56.5	56.9	57.7	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0	57.0
≥ 14000	38.1	51.6	54.2	56.9	57.2	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3	57.3
≥ 12000	38.4	52.2	54.8	57.8	58.2	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3
≥ 10000	41.3	55.8	58.5	61.8	62.1	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2	62.2
≥ 9000	42.7	57.8	60.2	63.8	64.3	64.4	64.5	64.5	64.5	64.5	64.6	64.6	64.6	64.6	64.6	64.6
≥ 8000	46.4	62.0	65.2	69.7	70.1	70.4	70.6	70.6	70.6	70.7	70.7	70.7	70.7	70.7	70.7	70.7
≥ 7000	47.6	63.8	67.3	72.0	72.8	73.0	73.2	73.2	73.2	73.4	73.4	73.4	73.4	73.4	73.4	73.4
≥ 6000	48.3	64.8	68.2	73.1	73.8	74.1	74.3	74.3	74.3	74.4	74.4	74.4	74.4	74.4	74.4	74.4
≥ 5000	50.7	67.5	71.4	77.2	77.9	78.1	78.4	78.4	78.4	78.5	78.5	78.5	78.5	78.5	78.5	78.5
≥ 4500	52.3	70.5	74.6	80.8	81.6	81.8	82.3	82.4	82.4	82.6	82.6	82.6	82.6	82.6	82.6	82.6
≥ 4000	56.7	75.1	79.5	86.7	87.0	87.3	87.8	88.2	88.2	88.3	88.3	88.3	88.3	88.3	88.3	88.3
≥ 3500	56.6	76.9	81.9	87.5	88.8	89.1	89.7	90.2	90.2	90.7	90.7	90.7	90.7	90.7	90.7	90.7
≥ 3000	58.3	78.9	83.5	90.9	92.2	92.6	93.3	94.1	94.1	94.6	94.7	94.9	94.9	94.9	94.9	94.9
≥ 2500	58.7	79.6	84.2	92.0	93.4	93.8	94.7	95.6	95.6	96.1	96.2	96.3	96.3	96.3	96.3	96.3
≥ 2000	58.9	79.9	84.8	92.8	94.5	94.9	95.8	96.7	96.7	97.1	97.3	97.4	97.4	97.4	97.4	97.4
≥ 1800	58.9	80.2	85.1	93.1	94.7	95.1	96.1	96.9	96.9	97.4	97.5	97.6	97.6	97.6	97.6	97.6
≥ 1500	59.4	80.9	85.9	94.0	95.7	96.2	97.1	98.1	98.2	98.7	98.8	98.9	98.9	98.9	98.9	98.9
≥ 1200	59.4	81.9	85.9	94.1	95.8	96.3	97.4	98.6	98.7	99.2	99.3	99.4	99.4	99.4	99.4	99.4
≥ 1000	59.4	81.9	85.9	94.1	95.8	96.3	97.4	98.6	98.7	99.2	99.3	99.4	99.4	99.4	99.4	99.4
≥ 900	59.5	81.0	86.0	94.3	95.9	96.4	97.6	98.8	98.9	99.4	99.5	99.6	99.6	99.6	99.6	99.6
≥ 800	59.5	81.0	86.0	94.3	95.9	96.4	97.6	98.8	98.9	99.4	99.5	99.6	99.6	99.6	99.6	99.6
≥ 700	59.5	81.7	86.7	94.3	95.9	96.4	97.6	98.8	98.9	99.4	99.5	99.6	99.6	99.6	99.6	99.6
≥ 600	59.5	81.0	86.0	94.3	95.9	96.4	97.6	98.8	98.9	99.4	99.5	99.6	99.6	99.6	99.6	99.6
≥ 500	59.5	81.0	86.0	94.3	95.9	96.4	97.6	98.8	98.9	99.4	99.5	99.6	99.6	99.6	99.6	99.6
≥ 400	59.5	81.0	86.0	94.3	95.9	96.4	97.6	98.8	98.9	99.4	99.5	99.6	99.6	99.6	99.6	99.6
≥ 300	59.5	81.0	86.0	94.3	95.9	96.4	97.6	98.8	98.9	99.4	99.5	99.6	99.6	99.6	99.6	99.6
≥ 200	59.5	81.0	86.0	94.3	95.9	96.4	97.6	98.8	98.9	99.4	99.5	99.6	99.6	99.6	99.6	99.6
≥ 100	59.5	81.0	86.0	94.3	95.9	96.4	97.6	98.8	98.9	99.4	99.5	99.6	99.6	99.6	99.6	99.6

TOTAL NUMBER OF OBSERVATIONS 837

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION GRAFENW. OH? AAF DL

73-81

ANC

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

11-7-2300

CEILING FEET	VISIBILITY STATUTE MILES															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2	≥ 1	≥ 1/2	≥ 1/4	≥ 1/8	≥ 1/16	≥ 1/32	≥ 1/64	≥ 1/128	≥ 1/256	≥ 1/512
NO. CEILING ≥ 20000	3.7	43.1	46.3	51.6	54.3	54.3	55.3	55.7	55.7	56.0	56.0	56.2	56.2	56.2	56.2	56.2
≥ 18000	32.3	45.6	51.1	59.6	61.9	63.9	62.2	62.7	62.7	62.9	62.9	63.2	63.2	63.2	63.2	63.2
≥ 16000	32.3	45.6	51.1	59.6	61.9	63.9	62.2	62.7	62.7	62.9	62.9	63.2	63.2	63.2	63.2	63.2
≥ 14000	32.7	45.9	51.5	59.9	61.4	61.4	62.7	63.2	63.2	63.4	63.4	63.6	63.6	63.6	63.6	63.6
≥ 12000	32.7	46.4	51.7	60.4	61.8	61.8	63.2	63.6	63.6	63.9	63.9	64.1	64.1	64.1	64.1	64.1
≥ 10000	36.4	50.7	55.3	65.1	66.5	66.5	67.9	68.4	68.4	68.7	68.7	68.9	68.9	68.9	68.9	68.9
≥ 9000	36.9	51.9	56.5	66.7	68.2	68.2	69.6	70.1	70.1	70.3	70.3	70.6	70.6	70.6	70.6	70.6
≥ 8000	40.1	55.6	60.5	71.2	73.0	73.0	74.4	75.2	75.2	75.5	75.5	75.7	75.7	75.7	75.7	75.7
≥ 7000	40.6	56.3	61.7	72.8	74.6	74.6	76.2	77.0	77.0	77.4	77.4	77.5	77.5	77.5	77.5	77.5
≥ 6000	41.3	57.1	62.4	73.7	75.5	75.5	77.2	78.0	78.0	78.3	78.3	78.5	78.7	78.7	78.7	78.7
≥ 5000	43.3	59.6	65.3	77.8	79.7	79.7	81.6	82.4	82.4	82.8	82.9	83.1	83.1	83.1	83.1	83.1
≥ 4500	44.4	60.9	67.2	79.7	81.8	81.8	83.7	84.7	84.7	85.0	85.2	85.4	85.4	85.4	85.4	85.4
≥ 4000	45.7	62.7	69.3	81.8	84.2	84.2	86.2	87.3	87.3	88.3	88.3	88.5	88.5	88.5	88.5	88.5
≥ 3500	46.1	63.6	71.3	83.0	85.6	85.6	87.9	89.2	89.2	90.7	90.9	91.1	91.1	91.1	91.1	91.1
≥ 3000	46.3	64.5	71.3	84.8	87.4	87.4	89.7	91.0	91.0	92.5	92.7	93.2	93.2	93.2	93.2	93.2
≥ 2500	47.1	65.0	71.9	85.4	88.3	88.4	90.9	92.2	92.2	93.7	93.9	94.4	94.4	94.4	94.4	94.4
≥ 2000	47.1	65.3	72.2	86.1	89.2	89.4	92.2	93.7	93.7	95.1	95.3	95.8	95.8	95.8	95.8	95.8
≥ 1800	47.1	65.3	72.2	86.2	89.5	89.6	93.3	94.9	94.9	96.3	96.5	97.0	97.0	97.0	97.0	97.0
≥ 1600	47.4	65.6	72.7	87.0	90.2	90.3	94.0	95.6	95.7	97.1	97.4	97.8	97.8	97.8	97.8	97.8
≥ 1400	47.4	65.7	73.1	87.3	90.7	90.8	94.7	96.4	96.5	98.0	98.2	98.7	98.7	98.7	98.7	98.7
≥ 1200	47.4	65.8	73.3	87.6	90.9	91.0	95.0	96.7	96.8	98.2	98.4	98.9	98.9	98.9	98.9	98.9
≥ 1000	47.4	65.8	73.3	87.6	90.9	91.3	95.2	96.9	97.0	98.4	98.7	99.2	99.2	99.2	99.2	99.2
≥ 900	47.4	65.8	73.3	87.6	90.9	91.3	95.2	96.9	97.0	98.4	98.7	99.2	99.2	99.2	99.2	99.2
≥ 800	47.4	65.8	73.3	87.6	90.9	91.3	95.2	96.9	97.0	98.4	98.7	99.2	99.2	99.2	99.2	99.2
≥ 700	47.4	65.8	73.3	87.6	90.9	91.3	95.2	96.9	97.0	98.4	98.7	99.2	99.2	99.2	99.2	99.2
≥ 600	47.4	65.8	73.3	87.6	90.9	91.3	95.2	96.9	97.0	98.4	98.7	99.2	99.2	99.2	99.2	99.2
≥ 500	47.4	65.8	73.3	87.6	90.9	91.3	95.2	96.9	97.0	98.4	98.7	99.2	99.2	99.2	99.2	99.2
≥ 400	47.4	65.8	73.3	87.6	90.9	91.3	95.2	96.9	97.0	98.4	98.7	99.2	99.2	99.2	99.2	99.2
≥ 300	47.4	65.8	73.3	87.6	90.9	91.3	95.2	96.9	97.0	98.4	98.7	99.2	99.2	99.2	99.2	99.2
≥ 200	47.4	65.8	73.3	87.6	90.9	91.3	95.2	96.9	97.0	98.4	98.7	99.2	99.2	99.2	99.2	99.2
≥ 100	47.4	65.8	73.3	87.6	90.9	91.3	95.2	96.9	97.0	98.4	98.7	99.2	99.2	99.2	99.2	99.2
≥ 0	47.4	65.8	73.3	87.6	90.9	91.3	95.2	96.9	97.0	98.4	98.7	99.2	99.2	99.2	99.2	99.2

TOTAL NUMBER OF OBSERVATIONS 836

GLOBAL CLIMATOLOGY BRANCH
AFETAC
AT WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 67 GRAFENWOHR AAF DL 73-81 DATE ALL

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	20	25	24	23	22	21	20	19	18	17	16	15	14	13	12
NO CEILING	24.2	34.6	37.5	42.9	44.3	44.5	45.9	46.8	47.7	47.8	48.7	48.1	48.5	48.9	49.1	49.4
≥ 20000	26.8	35.4	41.7	48.3	50.0	50.2	51.8	52.8	53.7	53.8	54.7	54.1	54.5	55.7	55.2	55.5
≥ 18000	27.1	38.8	42.2	49.1	50.8	51.0	52.6	53.6	53.8	54.6	54.8	55.7	55.3	55.8	56.7	56.7
≥ 16000	27.1	38.8	42.2	49.2	50.9	51.1	52.7	53.7	53.9	54.7	54.9	55.0	55.4	55.9	56.1	56.4
≥ 14000	27.2	39.0	42.4	49.3	51.1	51.3	52.9	53.9	54.1	54.9	55.1	55.2	55.6	56.1	56.3	56.6
≥ 12000	27.5	39.5	42.9	50.7	51.8	52.0	53.7	54.7	54.9	55.7	55.9	56.1	56.4	56.9	57.1	57.5
≥ 10000	29.2	41.9	45.5	52.9	54.8	55.7	56.8	57.8	58.0	58.9	59.1	59.3	59.6	60.2	60.5	60.6
≥ 9000	29.9	42.8	46.5	54.3	56.3	56.5	58.3	59.3	59.6	60.5	60.7	60.8	61.2	61.8	62.1	62.5
≥ 8000	32.4	46.4	51.7	59.8	62.2	62.5	64.6	65.8	66.1	67.1	67.4	67.5	67.9	68.5	68.8	69.7
≥ 7000	33.2	47.5	51.9	61.5	64.0	64.3	66.4	67.7	68.0	69.1	69.3	69.5	69.9	70.5	70.8	71.2
≥ 6000	33.5	47.9	52.4	62.1	64.6	64.9	67.0	68.3	68.7	69.7	70.0	70.2	70.6	71.2	71.5	71.9
≥ 5000	34.9	49.9	54.3	65.7	67.6	67.9	70.3	71.6	72.0	73.1	73.4	73.6	74.3	74.7	75.0	75.4
≥ 4500	36.0	51.5	56.6	67.3	70.1	70.4	73.0	74.4	74.8	76.0	76.3	76.5	76.9	77.6	77.9	78.7
≥ 4000	36.3	54.4	59.7	71.0	73.9	74.3	76.9	78.4	78.8	80.1	80.4	80.6	81.1	81.7	82.0	82.4
≥ 3500	39.5	56.4	61.8	73.4	76.5	76.9	79.7	81.3	81.7	83.3	83.6	83.9	84.3	85.7	85.1	85.6
≥ 3000	41.3	59.3	65.1	77.3	80.5	80.9	83.8	85.7	86.1	87.7	88.1	88.4	88.9	89.6	89.9	90.2
≥ 2500	42.5	61.3	66.1	78.7	82.0	82.5	85.6	87.5	87.9	89.5	89.9	90.2	90.7	91.4	91.7	92.1
≥ 2000	43.1	61.1	67.7	79.9	83.4	83.9	87.2	89.3	89.8	91.4	91.8	92.2	92.6	93.3	93.6	94.2
≥ 1800	43.2	61.3	67.2	80.2	83.7	84.2	87.5	89.6	90.2	91.8	92.2	92.5	93.7	93.7	94.0	94.4
≥ 1600	43.4	61.6	67.7	80.9	84.5	85.0	88.6	90.8	91.3	93.0	93.4	93.7	94.2	94.9	95.2	95.6
≥ 1400	43.6	62.0	68.2	81.6	85.3	85.8	89.5	91.7	92.3	93.9	94.4	94.7	95.2	95.9	96.2	96.6
≥ 1200	43.7	62.1	68.4	82.1	85.8	86.3	90.2	92.5	93.1	94.7	95.2	95.6	96.1	96.8	97.1	97.5
≥ 1000	43.8	62.2	68.5	82.3	86.0	86.6	90.5	92.9	93.5	95.1	95.6	96.7	96.5	97.2	97.5	97.8
≥ 900	43.8	62.3	68.6	82.4	86.1	86.7	90.7	93.1	93.7	95.4	95.8	96.2	96.8	97.5	97.8	98.1
≥ 800	43.8	62.3	68.6	82.4	86.2	86.8	90.8	93.2	93.8	95.5	96.0	96.4	96.9	97.6	97.9	98.3
≥ 700	43.8	62.3	68.6	82.4	86.2	86.8	90.9	93.4	94.0	95.7	96.2	96.7	97.2	97.9	98.2	98.6
≥ 600	43.8	62.3	68.6	82.4	86.2	86.8	91.0	93.4	94.1	95.9	96.4	96.8	97.4	98.1	98.4	98.9
≥ 500	43.8	62.3	68.6	82.4	86.2	86.8	91.0	93.4	94.1	95.9	96.5	97.7	97.7	98.5	98.9	99.4
≥ 400	43.8	62.3	68.6	82.4	86.2	86.8	91.0	93.4	94.1	95.9	96.5	97.7	97.7	98.6	99.1	99.9
≥ 300	43.8	62.3	68.6	82.4	86.2	86.8	91.0	93.4	94.1	95.9	96.5	97.7	97.7	98.6	99.1	99.9
≥ 200	43.8	62.3	68.6	82.4	86.2	86.8	91.0	93.4	94.1	95.9	96.5	97.7	97.7	98.6	99.1	99.9
≥ 100	43.8	62.3	68.6	82.4	86.2	86.8	91.0	93.4	94.1	95.9	96.5	97.7	97.7	98.6	99.1	99.9

TOTAL NUMBER OF OBSERVATIONS 6693

GENERAL CLIMATOLOGY BRANCH
USAFETAC
AIR FATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1-7 GRAFENWOHR AAF DL
STATION NAME

73-01

SEP

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

2000-0000

ELEVATION FEET	VISIBILITY STATUTE MILES															
	20	20	25	24	23	22	21	20	19	18	17	16	15	14	13	12
1000	16.1	22.9	26.7	34.8	34.8	37.6	41.5	43.2	43.5	45.1	45.9	45.9	47.1	47.5	49.0	49.9
2000	16.3	24.4	23.5	37.3	39.4	40.2	44.3	45.9	46.3	47.9	48.5	48.6	49.9	50.5	52.0	53.4
3000	16.9	24.4	29.5	37.6	39.7	40.4	44.5	46.1	46.6	48.4	49.0	49.1	50.4	51.0	52.5	53.9
4000	16.3	24.4	29.5	37.6	39.7	40.4	44.5	46.1	46.6	48.4	49.0	49.1	50.4	51.0	52.5	53.9
5000	16.9	24.4	29.5	37.6	39.7	40.4	44.5	46.1	46.6	48.4	49.0	49.1	50.4	51.0	52.5	53.9
6000	17.0	24.5	23.6	37.7	39.8	40.5	44.7	46.3	46.8	48.5	49.1	49.3	50.5	51.1	52.6	54.0
7000	18.9	26.4	37.8	40.0	42.5	43.3	47.8	49.4	49.9	51.6	52.2	52.4	53.6	54.2	55.7	57.1
8000	18.9	26.6	31.1	40.3	42.8	43.5	48.3	49.9	50.4	52.1	52.7	52.9	54.1	54.7	56.2	57.6
9000	22.8	31.3	36.2	46.3	48.9	49.6	54.5	56.1	56.6	58.3	59.0	59.1	60.3	60.9	62.4	63.8
10000	23.8	32.5	37.3	47.9	50.7	51.5	56.7	58.3	58.8	60.6	61.2	61.4	62.7	63.3	64.9	66.4
11000	25.1	34.3	39.8	49.6	52.6	53.4	58.8	60.7	61.2	63.1	63.9	63.9	65.2	65.8	67.4	68.9
12000	25.2	36.1	41.3	52.7	55.8	56.6	62.1	63.9	64.4	66.3	67.0	67.2	68.4	69.1	70.6	72.1
13000	27.4	37.8	43.0	54.9	58.2	59.1	64.8	66.7	67.2	69.0	69.8	70.0	71.3	71.9	73.5	75.0
14000	28.4	39.9	45.3	57.8	61.7	62.6	69.3	70.5	71.0	73.1	73.9	74.1	75.6	76.2	77.9	79.4
15000	29.1	41.7	46.4	59.1	63.4	64.3	70.0	72.5	73.4	75.5	76.2	76.5	78.0	78.7	80.3	81.8
16000	31.7	43.4	49.3	63.2	68.2	69.0	75.2	77.9	78.7	80.8	81.6	81.8	84.0	84.8	86.4	88.2
17000	31.5	44.2	50.0	64.6	69.5	70.5	77.1	79.7	80.6	82.7	83.5	83.7	85.8	86.7	88.3	90.0
18000	32.0	44.8	50.6	66.3	71.3	72.3	79.6	82.2	83.1	85.3	86.1	86.3	88.4	89.1	90.9	92.7
19000	32.7	44.8	50.7	66.4	71.4	72.4	79.9	82.5	83.3	85.6	86.3	86.6	88.7	89.6	91.2	92.9
20000	33.0	45.8	51.9	67.7	72.8	73.8	81.5	84.1	85.0	87.3	88.1	88.3	90.4	91.3	92.9	94.7
21000	33.1	45.9	52.1	67.9	73.3	74.3	82.3	85.0	85.8	88.3	89.1	89.3	91.4	92.3	93.9	95.6
22000	33.1	45.9	52.1	68.0	73.4	74.4	82.5	85.1	85.9	88.4	89.2	89.4	91.5	92.4	94.0	95.8
23000	33.1	45.9	52.1	68.2	73.6	74.6	82.7	85.3	86.2	88.7	89.4	89.7	91.8	92.7	94.3	96.2
24000	33.1	45.9	52.1	68.2	73.8	74.8	82.8	85.4	86.3	88.8	89.6	89.8	91.9	92.8	94.4	96.1
25000	33.1	45.9	52.1	68.2	73.8	74.8	83.2	85.8	86.7	89.2	89.9	90.2	92.3	93.2	94.8	96.5
26000	33.1	45.9	52.1	68.2	74.1	75.1	83.6	86.2	87.2	89.7	90.4	90.7	92.8	93.7	95.3	97.0
27000	33.1	45.9	52.1	68.2	74.1	75.1	83.6	86.2	87.2	89.7	90.4	90.7	92.8	93.7	95.3	97.0
28000	33.1	45.9	52.1	68.2	74.1	75.1	83.6	86.2	87.2	89.7	90.4	90.7	92.8	93.7	95.3	97.0
29000	33.1	45.9	52.1	68.2	74.1	75.1	83.6	86.2	87.2	89.7	90.4	90.7	92.8	93.7	95.3	97.0
30000	33.1	45.9	52.1	68.2	74.1	75.1	83.6	86.2	87.2	89.7	90.4	90.7	92.8	93.7	95.3	97.0

TOTAL NUMBER OF OBSERVATIONS 804

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 157 GRAFENWOHR AAF DL

73-51

SEP

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

0300-0500

CEILING FEET	VISIBILITY, STATUTE MILES															
	20	20	25	24	23	22	21	20	19	18	17	16	15	14	13	12
20000	1.4	15.5	19.8	26.0	27.7	28.0	32.1	33.3	33.7	36.1	36.7	37.3	39.2	41.7	42.5	44.7
18000	11.4	16.5	21.1	27.4	29.1	29.4	33.7	35.0	35.3	37.7	38.3	39.1	41.2	42.7	44.8	46.4
16000	11.4	16.5	21.1	27.5	29.2	29.5	33.8	35.1	35.4	37.8	38.4	39.2	41.3	42.8	44.9	46.5
14000	11.4	16.5	21.1	27.5	29.2	29.5	33.8	35.1	35.4	37.8	38.4	39.2	41.3	42.8	44.9	46.5
12000	11.4	16.5	21.1	27.5	29.2	29.5	33.8	35.1	35.4	37.8	38.4	39.2	41.3	42.8	44.9	46.5
10000	12.9	18.0	22.8	29.2	31.3	31.6	36.3	37.6	37.9	40.4	41.0	41.8	44.0	45.8	48.0	49.6
8000	12.9	18.0	22.8	29.2	31.5	31.7	36.8	38.1	38.4	41.0	41.7	42.4	44.7	46.4	48.6	50.2
6000	15.7	21.3	26.1	33.5	35.7	35.9	41.5	42.9	43.3	45.9	46.5	47.3	49.5	51.0	53.5	55.1
4000	17.2	23.4	28.2	36.2	38.4	38.7	44.4	45.8	46.1	48.9	49.5	50.2	52.5	54.2	56.5	58.1
2000	17.3	24.3	29.1	37.3	39.7	39.9	45.8	47.5	47.9	50.6	51.2	52.3	54.2	56.3	58.2	59.9
1000	19.1	26.0	31.1	39.8	42.4	42.7	49.5	51.2	51.6	54.4	55.0	55.7	58.0	59.7	61.9	63.6
500	19.9	27.4	32.5	41.9	44.5	44.8	52.0	53.7	54.1	56.8	57.5	58.2	60.4	62.2	64.4	66.0
250	20.4	28.5	33.7	44.2	47.4	47.6	55.1	57.0	57.3	60.2	60.8	61.6	64.2	65.9	68.2	69.9
150	21.1	29.5	35.1	45.5	49.3	49.5	57.0	58.8	59.5	62.3	62.9	63.7	66.3	68.1	70.5	72.3
100	23.6	32.7	38.8	50.4	54.5	55.1	63.3	65.7	66.7	69.7	70.3	71.0	73.8	75.9	78.1	80.0
75	24.7	33.1	39.2	51.5	55.7	56.3	64.9	67.8	68.8	71.9	72.5	73.3	76.0	78.1	80.3	82.2
50	25.0	34.1	40.2	53.2	57.5	58.1	67.4	70.3	71.3	74.4	75.0	75.7	78.5	80.7	83.0	84.8
25	25.1	34.5	40.5	53.6	58.1	58.7	68.0	70.9	71.9	75.0	75.6	76.4	79.1	81.3	83.6	85.4
15	26.2	35.7	41.8	55.1	59.7	60.3	69.7	72.5	73.8	76.9	77.5	78.2	81.0	83.0	85.4	87.3
10	26.6	36.2	42.3	55.7	60.3	60.9	70.8	73.6	74.9	78.1	78.7	79.5	82.5	84.7	86.9	88.8
7.5	27.1	36.7	42.8	56.3	60.9	61.6	72.0	75.0	76.4	79.7	80.3	81.1	84.1	86.3	88.6	90.4
5	27.1	36.7	42.8	56.5	61.1	61.7	72.3	75.2	76.6	80.0	80.6	81.3	84.3	86.6	88.9	90.7
2.5	27.1	36.7	42.8	56.5	61.3	61.9	72.8	75.7	77.1	80.6	81.2	82.0	85.0	87.2	89.4	91.3
2	27.1	36.7	42.8	56.5	61.6	62.2	73.0	76.0	77.6	81.1	81.7	82.5	85.4	87.7	89.9	91.8
1.5	27.1	36.7	42.8	56.5	61.6	62.2	73.3	76.7	78.5	82.1	83.0	83.7	86.7	88.9	91.2	93.0
1	27.1	36.7	42.8	56.5	61.6	62.2	73.4	76.9	78.6	82.2	83.1	83.8	86.8	89.2	91.5	94.0
.75	27.1	36.7	42.8	56.5	61.6	62.2	73.4	76.9	78.6	82.2	83.1	83.8	86.8	89.2	91.5	94.0
.5	27.1	36.7	42.8	56.5	61.6	62.2	73.4	76.9	78.6	82.2	83.1	83.8	86.8	89.2	91.5	94.0
.25	27.1	36.7	42.8	56.5	61.6	62.2	73.4	76.9	78.6	82.2	83.1	83.8	86.8	89.2	91.5	94.0
.1	27.1	36.7	42.8	56.5	61.6	62.2	73.4	76.9	78.6	82.2	83.1	83.8	86.8	89.2	91.5	94.0
.05	27.1	36.7	42.8	56.5	61.6	62.2	73.4	76.9	78.6	82.2	83.1	83.8	86.8	89.2	91.5	94.0

TOTAL NUMBER OF OBSERVATIONS 604

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AT- WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 677 3PAFENWHR AAF DL

73-81

SEP

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

622-0402

CEILING FEET	VISIBILITY - STATUTE MILES															
	20	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
NO CEILING	6.7	11.4	12.8	16.1	18.4	18.8	21.4	23.7	24.0	26.6	27.5	27.8	28.8	30.6	32.3	34.7
2 2000	7.2	11.1	13.7	17.6	20.2	20.9	24.0	26.8	27.2	30.1	31.1	31.4	32.5	34.5	36.6	39.1
2 1800	7.3	11.3	13.9	17.9	20.5	21.1	24.3	27.2	27.6	30.4	31.4	31.8	32.9	34.9	37.0	39.5
2 1600	7.3	11.3	13.9	17.9	20.5	21.1	24.3	27.2	27.6	30.4	31.4	31.8	32.9	34.9	37.0	39.5
2 1400	7.3	11.3	13.9	17.9	20.5	21.1	24.3	27.2	27.6	30.4	31.4	31.8	32.9	34.9	37.0	39.5
2 1200	7.3	11.3	13.9	17.9	20.5	21.1	24.3	27.2	27.6	30.4	31.4	31.8	32.9	34.9	37.0	39.5
2 1000	8.1	12.0	15.2	19.4	22.4	23.1	26.6	29.4	29.9	32.9	33.9	34.3	35.5	37.6	39.9	42.4
2 900	8.1	12.0	15.5	19.8	22.7	23.5	27.1	29.9	30.4	33.4	34.4	34.9	36.3	38.4	40.6	43.1
2 800	9.5	14.3	18.0	22.9	26.6	27.3	31.6	34.8	35.4	39.1	40.2	40.9	42.2	44.5	46.7	49.2
2 700	9.8	15.2	18.9	24.1	28.2	28.9	33.2	36.4	37.0	40.7	41.9	42.6	44.2	46.2	48.4	50.9
2 600	10.3	15.5	19.4	24.6	28.7	29.4	33.9	37.3	37.9	41.9	43.7	43.7	45.1	47.3	49.6	52.2
2 500	11.4	16.9	20.9	26.2	30.6	31.3	36.3	39.6	40.2	44.7	45.8	46.6	48.0	50.2	52.4	55.2
2 450	11.8	17.8	22.2	28.0	32.8	33.5	38.9	42.2	42.9	47.3	48.6	49.3	50.8	53.0	55.3	58.0
2 400	12.2	18.4	23.7	29.7	35.0	36.3	41.6	45.2	46.0	51.1	52.3	53.2	54.7	56.9	59.1	61.9
2 350	13.2	20.1	25.6	32.2	37.8	38.8	44.5	48.1	48.8	53.9	55.2	56.1	57.6	59.9	62.1	64.8
2 300	15.2	22.6	28.3	35.5	42.0	43.0	49.6	53.4	54.3	60.2	61.4	62.7	65.0	67.2	69.6	72.3
2 250	15.7	23.2	29.1	36.5	43.4	44.3	50.9	55.0	56.0	62.2	63.6	65.2	67.5	69.7	72.0	74.8
2 200	16.6	25.2	31.6	40.0	47.2	48.2	54.9	59.1	60.2	66.6	68.0	69.6	71.8	74.3	76.6	79.4
2 1800	16.6	25.2	31.6	40.0	47.6	48.6	55.3	59.6	60.7	67.1	68.4	70.1	72.3	74.8	77.1	79.9
2 1600	17.5	26.6	33.2	41.9	49.7	50.7	57.6	62.2	63.6	70.2	71.6	73.2	75.5	78.0	80.4	83.1
2 1400	17.9	27.2	33.8	43.0	51.3	52.4	59.6	64.2	65.6	73.2	74.5	76.3	78.6	81.1	83.5	86.2
2 1200	18.7	27.5	34.0	43.5	51.9	53.0	60.2	65.1	66.5	74.3	75.7	77.4	79.8	82.2	84.6	87.3
2 1000	18.7	27.5	34.0	43.5	51.9	53.0	60.2	65.2	66.6	74.8	76.1	77.9	80.2	82.7	85.1	87.8
2 900	18.7	27.5	34.0	43.6	52.0	53.2	60.5	65.5	67.0	75.2	76.5	78.4	80.7	83.2	85.6	88.3
2 800	18.7	27.5	34.0	44.0	52.4	53.5	60.9	66.0	67.5	75.8	77.1	79.0	81.4	83.9	86.2	88.9
2 700	18.7	27.5	34.0	44.0	52.4	53.5	60.9	66.0	67.5	76.0	77.4	79.3	81.6	84.1	86.5	89.3
2 600	18.0	27.5	34.2	44.2	52.8	53.9	61.2	66.5	68.1	76.6	78.0	79.9	82.2	84.7	87.1	89.4
2 500	18.0	27.5	34.2	44.2	52.8	53.9	61.2	66.6	68.2	77.0	78.4	80.2	82.6	85.2	87.8	90.4
2 400	18.0	27.5	34.2	44.2	52.8	53.9	61.2	66.6	68.2	77.4	78.8	80.7	83.2	86.2	89.9	93.2
2 300	18.0	27.5	34.2	44.2	52.8	53.9	61.2	66.6	68.2	77.4	78.8	80.9	83.5	87.1	91.6	95.2
2 200	18.0	27.5	34.2	44.2	52.8	53.9	61.2	66.6	68.2	77.4	78.8	80.9	83.5	87.2	91.8	95.1
2 100	18.0	27.5	34.2	44.2	52.8	53.9	61.2	66.6	68.2	77.5	78.9	81.0	83.6	87.3	91.9	95.0

TOTAL NUMBER OF OBSERVATIONS 825

USAF ETAC FORM 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1970 GRAFENWOHR AAF DL

73-81

SEP

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1950-1999

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005
NO CEILING	13.1	21.7	22.8	30.0	32.5	32.8	34.5	35.0	35.1	35.4	35.4	35.4	35.4	35.2	35.2	35.2
≥20000	14.3	23.5	25.8	34.0	37.0	37.2	39.1	39.6	39.7	40.0	40.0	40.0	40.0	40.5	40.6	40.6
≥18000	14.3	23.5	25.8	34.0	37.1	37.4	39.2	39.7	39.9	40.1	40.1	40.1	40.1	40.6	40.7	40.7
≥16000	14.3	23.5	25.8	34.0	37.1	37.4	39.2	39.7	39.9	40.1	40.1	40.1	40.1	40.6	40.7	40.7
≥14000	14.9	23.5	25.8	34.1	37.2	37.5	39.4	39.9	40.0	40.2	40.2	40.2	40.2	40.7	40.8	40.8
≥12000	15.1	23.8	26.1	34.4	37.5	37.7	39.6	40.1	40.2	40.5	40.5	40.5	40.5	41.0	41.1	41.1
≥10000	15.7	24.7	27.3	36.5	39.9	40.1	42.1	42.6	42.7	43.0	43.0	43.0	43.0	43.5	43.6	43.6
≥9000	16.2	25.4	28.1	37.7	41.2	41.5	43.7	44.2	44.3	44.6	44.6	44.6	44.6	45.1	45.2	45.2
≥8000	19.7	29.5	32.8	44.0	48.1	48.3	50.9	51.9	52.3	52.6	52.6	52.6	52.6	53.1	53.2	53.2
≥7000	21.3	30.6	34.0	45.3	49.4	49.7	52.3	53.4	53.8	54.0	54.0	54.0	54.0	54.5	54.7	54.7
≥6000	20.4	30.8	34.1	45.7	49.9	50.2	52.8	53.9	54.3	54.5	54.5	54.5	54.5	55.0	55.2	55.2
≥5000	22.0	32.5	36.1	47.8	52.4	52.7	55.4	56.7	57.0	57.4	57.4	57.4	57.4	57.9	58.0	58.0
≥4500	22.5	33.1	37.1	49.2	53.8	54.0	56.8	58.0	58.4	58.8	58.8	58.8	58.8	59.3	59.4	59.4
≥4000	24.3	35.5	39.9	52.6	57.2	57.4	60.3	61.5	61.9	62.5	62.5	62.5	62.5	63.0	63.1	63.1
≥3500	26.4	38.0	42.3	55.5	60.1	60.4	63.4	64.9	65.3	65.9	65.9	65.9	65.9	66.4	66.5	66.5
≥3000	29.1	41.3	45.8	60.7	65.1	65.4	68.7	70.6	71.0	71.7	71.7	71.7	71.7	72.1	72.6	72.7
≥2500	27.6	43.0	47.6	62.1	67.4	67.6	71.1	73.1	73.6	74.5	74.5	74.6	74.8	75.3	75.5	75.5
≥2000	31.1	46.0	50.8	66.7	72.4	72.7	76.3	78.6	79.1	80.4	80.6	80.7	80.9	81.4	81.6	81.6
≥1800	31.3	46.3	51.2	67.6	73.2	73.6	77.2	79.5	80.0	81.3	81.4	81.6	81.8	82.3	82.4	82.4
≥1600	32.4	48.2	53.4	70.0	75.8	76.5	80.4	83.1	83.6	85.1	85.3	85.4	85.7	86.2	86.3	86.3
≥1400	32.4	49.7	54.9	71.7	78.0	78.6	82.7	85.4	85.9	87.8	88.0	88.2	88.2	88.4	88.9	89.0
≥1200	33.7	50.1	55.3	73.1	79.6	80.2	84.7	87.9	88.4	90.5	90.6	90.9	91.2	91.7	91.8	91.8
≥1000	33.9	50.2	55.4	73.3	79.8	80.6	85.2	88.4	88.9	91.0	91.3	91.4	91.7	92.2	92.3	92.3
≥900	33.9	50.2	55.4	73.3	79.8	80.6	85.2	88.4	88.9	91.0	91.3	91.4	91.7	92.2	92.3	92.3
≥800	33.9	50.2	55.4	73.3	79.8	80.6	85.2	88.4	88.9	91.0	91.3	91.4	91.7	92.2	92.3	92.3
≥700	33.9	50.2	55.4	73.3	79.8	80.6	85.2	88.4	88.9	91.0	91.3	91.4	91.7	92.2	92.3	92.3
≥600	33.9	50.2	55.4	73.3	79.8	80.6	85.2	88.4	88.9	91.0	91.3	91.4	91.7	92.2	92.3	92.3
≥500	33.9	50.2	55.4	73.3	79.8	80.6	85.2	88.4	88.9	91.0	91.3	91.4	91.7	92.2	92.3	92.3
≥400	33.9	50.2	55.4	73.3	79.8	80.6	85.2	88.4	88.9	91.0	91.3	91.4	91.7	92.2	92.3	92.3
≥300	33.9	50.2	55.4	73.3	79.8	80.6	85.2	88.4	88.9	91.0	91.3	91.4	91.7	92.2	92.3	92.3
≥200	33.9	50.2	55.4	73.3	79.8	80.6	85.2	88.4	88.9	91.0	91.3	91.4	91.7	92.2	92.3	92.3
≥100	33.9	50.2	55.4	73.3	79.8	80.6	85.2	88.4	88.9	91.0	91.3	91.4	91.7	92.2	92.3	92.3
≥50	33.9	50.2	55.4	73.3	79.8	80.6	85.2	88.4	88.9	91.0	91.3	91.4	91.7	92.2	92.3	92.3
≥20	33.9	50.2	55.4	73.3	79.8	80.6	85.2	88.4	88.9	91.0	91.3	91.4	91.7	92.2	92.3	92.3
≥10	33.9	50.2	55.4	73.3	79.8	80.6	85.2	88.4	88.9	91.0	91.3	91.4	91.7	92.2	92.3	92.3

TOTAL NUMBER OF OBSERVATIONS 803

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 16577 GRAFENWOHR AAF DL

73-81

SEP

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1237-1400

CEILING FEET	VISIBILITY - STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
25000	27.7	32.5	33.6	37.8	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3
20000	26.9	38.7	39.8	44.4	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9	44.9
18000	27.7	39.6	47.7	45.4	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9
16000	27.7	39.6	47.7	45.4	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9
14000	27.7	39.6	47.7	45.5	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0	46.0
12000	28.1	40.0	41.2	46.0	46.5	46.5	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6	46.6
10000	30.2	42.3	43.5	48.8	49.3	49.3	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4	49.4
9000	31.1	43.7	45.1	50.5	51.0	51.0	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1
8000	34.5	47.8	49.6	56.8	57.3	57.3	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6	57.6
7000	36.1	49.8	51.7	59.0	59.5	59.5	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7	59.7
6000	36.3	50.0	52.0	59.2	59.7	59.7	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0	60.0
5000	37.2	52.2	54.2	62.2	62.7	62.7	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.9
4500	39.3	53.9	56.1	64.1	64.6	64.6	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8	64.8
4000	41.2	57.1	59.6	68.2	68.7	68.7	68.9	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0	69.0
3500	45.1	62.2	64.7	73.6	74.1	74.1	74.4	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5	74.5
3000	49.6	67.8	77.4	81.6	82.5	82.5	83.2	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3
2500	52.7	70.6	73.3	85.0	85.8	85.8	86.8	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1	87.1
2000	53.9	73.6	76.6	89.6	91.5	91.7	91.7	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4
1800	54.5	74.3	77.2	90.2	91.2	91.3	92.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3	93.3
1600	55.3	75.5	78.6	91.9	92.9	93.3	94.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5	95.5
1400	56.1	76.7	80.0	93.4	94.4	94.9	96.1	97.1	97.1	97.3	97.3	97.5	97.5	97.5	97.5	97.5
1200	56.1	77.1	80.3	93.9	95.1	95.6	96.9	97.9	97.9	98.0	98.3	98.4	98.4	98.4	98.4	98.4
1000	56.1	77.1	80.3	93.9	95.1	95.6	97.0	98.1	98.1	98.4	98.6	98.8	98.8	98.8	98.8	98.8
900	56.1	77.1	80.3	93.9	95.4	95.9	97.3	98.4	98.4	98.6	98.9	99.0	99.0	99.0	99.0	99.0
800	56.1	77.2	80.5	94.4	95.9	96.4	97.9	99.3	99.3	99.5	99.8	99.9	99.9	99.9	99.9	99.9
700	56.1	77.2	80.5	94.4	95.9	96.4	97.9	99.3	99.3	99.5	99.8	99.9	99.9	99.9	99.9	99.9
600	56.1	77.2	80.5	94.4	95.9	96.4	97.9	99.4	99.4	99.6	99.9	100.0	100.0	100.0	100.0	100.0
500	56.1	77.2	80.5	94.4	95.9	96.4	97.9	99.4	99.4	99.6	99.9	100.0	100.0	100.0	100.0	100.0
400	56.1	77.2	80.5	94.4	95.9	96.4	97.9	99.4	99.4	99.6	99.9	100.0	100.0	100.0	100.0	100.0
300	56.1	77.2	80.5	94.4	95.9	96.4	97.9	99.4	99.4	99.6	99.9	100.0	100.0	100.0	100.0	100.0
200	56.1	77.2	80.5	94.4	95.9	96.4	97.9	99.4	99.4	99.6	99.9	100.0	100.0	100.0	100.0	100.0
100	56.1	77.2	80.5	94.4	95.9	96.4	97.9	99.4	99.4	99.6	99.9	100.0	100.0	100.0	100.0	100.0
0	56.1	77.2	80.5	94.4	95.9	96.4	97.9	99.4	99.4	99.6	99.9	100.0	100.0	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 804

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1977 GRAFENWHR AAF DL

73-81

SEP

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1500-1700

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥1	≥1/2	≥1/4	≥1/8	≥1/16	≥1/32	≥1/64	≥1/128	≥1/256	≥1/512
NO CEILING	20.5	36.3	39.3	41.2	41.2	41.2	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3
≥20000	33.3	44.9	46.1	48.1	48.3	48.3	48.4	48.4	48.4	48.4	48.4	48.4	48.4	48.4	48.4	48.4
≥18000	35.3	46.6	48.1	50.1	50.2	50.2	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4
≥16000	35.3	46.6	48.1	50.1	50.2	50.2	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4
≥14000	35.4	46.8	48.3	50.4	50.5	50.5	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6
≥12000	35.9	47.4	49.7	51.1	51.2	51.2	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5
≥10000	37.8	49.3	51.0	53.7	54.0	54.0	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2
≥9000	39.2	50.7	52.6	55.6	55.8	55.8	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1
≥8000	44.7	57.3	59.5	63.1	63.4	63.4	63.7	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8	63.8
≥7000	47.0	60.0	62.1	65.9	66.3	66.3	66.5	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7	66.7
≥6000	47.9	60.9	63.1	67.0	67.5	67.5	67.8	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0	68.0
≥5000	50.9	64.7	66.9	71.3	71.9	71.9	72.3	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
≥4500	52.4	66.7	68.9	73.6	74.3	74.3	74.6	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.9
≥4000	55.7	71.1	73.4	78.5	79.1	79.2	79.6	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9	79.9
≥3500	59.5	75.1	77.4	82.8	83.5	83.6	84.2	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5	84.5
≥3000	63.1	79.2	81.7	87.9	89.1	89.2	89.8	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0	90.0
≥2500	63.9	80.2	83.1	90.0	91.2	91.3	91.9	92.5	92.7	92.7	92.7	92.7	92.7	92.7	92.7	92.7
≥2000	65.0	81.6	85.0	92.7	94.2	94.3	95.3	96.3	96.4	96.4	96.4	96.4	96.4	96.4	96.4	96.4
≥1800	65.2	81.7	85.1	92.9	94.4	94.5	95.5	96.8	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9
≥1600	65.4	82.2	85.6	93.5	95.1	95.3	96.4	97.6	97.9	97.9	97.9	97.9	97.9	97.9	97.9	97.9
≥1400	65.7	82.5	85.8	93.8	95.6	95.8	97.0	98.4	98.6	98.6	98.6	98.6	98.6	98.6	98.6	98.6
≥1200	65.7	82.6	85.9	94.3	96.3	96.4	97.6	99.0	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
≥1000	65.7	82.6	85.9	94.3	96.3	96.4	97.6	99.0	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
≥900	65.7	82.6	85.9	94.3	96.3	96.4	97.6	99.0	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
≥800	65.7	82.6	85.9	94.3	96.3	96.4	97.6	99.0	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
≥700	65.7	82.6	85.9	94.4	96.6	96.8	98.0	99.6	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥600	65.7	82.6	85.9	94.4	96.6	96.8	98.0	99.6	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥500	65.7	82.6	85.9	94.4	96.6	96.8	98.0	99.6	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥400	65.7	82.6	85.9	94.4	96.6	96.8	98.0	99.6	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥300	65.7	82.6	85.9	94.4	96.6	96.8	98.0	99.6	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥200	65.7	82.6	85.9	94.4	96.6	96.8	98.0	99.6	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
≥100	65.7	82.6	85.9	94.4	96.6	96.8	98.0	99.6	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9

TOTAL NUMBER OF OBSERVATIONS 804

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1977 GRAFENWORTH AAF DL

73-81

SEP

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1800-2000

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005
NO CEILING	28.5	47.1	43.3	46.9	48.1	48.1	48.4	48.4	48.4	48.6	48.6	48.6	48.6	48.6	48.6	48.6
≥ 20000	32.9	45.8	49.3	54.0	55.3	55.3	55.6	55.6	55.6	55.9	55.9	55.9	55.9	55.9	56.0	56.0
≥ 18000	33.5	46.6	50.1	54.9	56.1	56.1	56.5	56.5	56.5	56.8	56.8	56.8	56.8	56.8	56.9	56.9
≥ 16000	33.5	46.6	50.1	54.9	56.1	56.1	56.5	56.5	56.5	56.8	56.8	56.8	56.8	56.8	56.9	56.9
≥ 14000	33.5	46.6	50.1	54.9	56.1	56.1	56.5	56.5	56.5	56.8	56.8	56.8	56.8	56.8	56.9	56.9
≥ 12000	34.1	47.5	51.7	55.8	57.0	57.0	57.5	57.5	57.5	57.8	57.8	57.8	57.8	57.8	57.9	57.9
≥ 10000	36.4	50.1	53.6	58.5	59.8	59.8	60.4	60.5	60.5	60.8	60.8	60.8	60.8	60.8	60.9	60.9
≥ 9000	37.7	50.9	54.4	59.8	61.0	61.0	61.6	61.8	61.8	62.5	62.7	62.7	62.7	62.7	62.7	62.7
≥ 8000	42.9	57.3	61.4	66.9	68.3	68.3	68.9	69.3	69.4	69.6	69.6	69.8	69.8	69.8	69.9	69.9
≥ 7000	46.3	61.9	66.0	71.8	73.1	73.1	73.9	74.3	74.4	74.6	74.6	74.8	74.8	74.8	74.9	74.9
≥ 6000	46.3	62.1	66.6	72.5	73.9	73.9	74.8	75.3	75.4	75.6	75.6	75.8	75.8	75.8	75.9	75.9
≥ 5000	46.3	64.0	68.5	75.0	76.4	76.4	77.3	77.8	77.9	78.1	78.1	78.3	78.3	78.4	78.4	78.4
≥ 4500	49.1	65.3	69.8	76.6	78.1	78.1	79.0	79.6	79.8	80.0	80.0	80.1	80.1	80.3	80.3	80.3
≥ 4000	51.3	69.7	74.0	81.0	82.9	82.9	83.9	84.8	84.9	85.4	85.4	85.5	85.5	85.6	85.6	85.6
≥ 3500	53.7	72.3	77.5	85.5	87.9	87.9	89.1	90.1	90.3	90.9	90.9	91.0	91.0	91.1	91.1	91.1
≥ 3000	54.4	74.4	79.8	88.0	90.8	90.8	92.1	93.1	93.3	93.9	93.9	94.0	94.0	94.1	94.1	94.1
≥ 2500	54.4	74.4	79.8	88.1	91.1	91.1	92.5	93.6	93.8	94.4	94.5	94.6	94.6	94.8	94.8	94.8
≥ 2000	54.6	74.8	80.3	88.8	92.0	92.0	93.6	95.0	95.3	95.9	96.0	96.1	96.1	96.3	96.3	96.3
≥ 1800	54.6	74.8	80.3	88.9	92.1	92.1	93.8	95.1	95.4	96.1	96.3	96.4	96.4	96.5	96.5	96.5
≥ 1500	54.6	74.8	80.4	89.3	92.5	92.5	94.3	95.6	96.0	97.0	97.1	97.2	97.3	97.4	97.4	97.4
≥ 1200	54.9	75.0	80.6	89.6	93.1	93.3	95.1	96.5	97.0	98.0	98.1	98.4	98.5	98.6	98.6	98.6
≥ 1000	54.9	75.0	80.6	89.6	93.3	93.4	95.3	96.8	97.3	98.3	98.4	98.6	98.8	98.9	98.9	98.9
≥ 900	54.9	75.0	80.6	89.6	93.3	93.6	95.5	97.0	97.5	98.5	98.6	98.9	99.0	99.1	99.1	99.1
≥ 800	54.9	75.0	80.6	89.6	93.3	93.9	95.8	97.3	97.8	98.8	98.9	99.1	99.3	99.4	99.4	99.4
≥ 700	54.9	75.0	80.6	89.6	93.3	93.9	95.8	97.3	97.8	98.8	98.9	99.1	99.3	99.4	99.4	99.4
≥ 600	54.9	75.0	80.6	89.6	93.5	94.1	96.1	97.8	98.3	99.4	99.5	99.8	99.9	100.0	100.0	100.0
≥ 500	54.9	75.0	80.6	89.6	93.5	94.1	96.1	97.8	98.3	99.4	99.5	99.8	99.9	100.0	100.0	100.0
≥ 400	54.9	75.0	80.6	89.6	93.5	94.1	96.1	97.8	98.3	99.4	99.5	99.8	99.9	100.0	100.0	100.0
≥ 300	54.9	75.0	80.6	89.6	93.5	94.1	96.1	97.8	98.3	99.4	99.5	99.8	99.9	100.0	100.0	100.0
≥ 200	54.9	75.0	80.6	89.6	93.5	94.1	96.1	97.8	98.3	99.4	99.5	99.8	99.9	100.0	100.0	100.0
≥ 100	54.9	75.0	80.6	89.6	93.5	94.1	96.1	97.8	98.3	99.4	99.5	99.8	99.9	100.0	100.0	100.0
≥ 0	54.9	75.0	80.6	89.6	93.5	94.1	96.1	97.8	98.3	99.4	99.5	99.8	99.9	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 800

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 77 WRAFFENHOF AAF DL

73-51

SEP

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

100-2300

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥9	≥8	≥7	≥6	≥5	≥4	≥3	≥2	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01
NO. CEILING	75.1	33.0	38.2	46.1	48.4	47.6	51.3	52.2	52.3	53.1	53.3	53.7	53.9	54.2	54.2	54.4
≥ 20000	27.3	35.9	41.1	49.8	52.2	52.3	55.3	56.6	56.8	57.6	58.1	58.4	58.7	59.1	59.1	59.3
≥ 18000	27.9	36.5	41.7	50.4	52.8	52.9	55.9	57.2	57.4	58.2	58.7	59.1	59.3	59.7	59.7	59.9
≥ 16000	27.3	36.5	41.7	50.4	52.8	52.9	55.9	57.2	57.4	58.2	58.7	59.1	59.3	59.7	59.7	59.9
≥ 14000	27.9	36.5	41.7	50.4	52.8	52.9	55.9	57.2	57.4	58.2	58.7	59.1	59.3	59.7	59.7	59.9
≥ 12000	28.2	36.8	41.9	50.7	53.1	53.2	56.3	57.6	57.8	58.6	59.1	59.4	59.8	60.2	60.2	60.6
≥ 10000	30.2	39.0	44.7	53.6	56.2	56.3	59.8	61.1	61.3	62.1	62.6	63.0	63.3	63.7	63.7	64.1
≥ 9000	30.3	39.3	44.9	53.8	56.4	56.6	60.1	61.3	61.6	62.3	62.8	63.2	63.6	64.0	64.0	64.3
≥ 8000	34.5	44.7	50.4	59.6	62.2	62.3	65.8	67.5	67.7	69.0	69.6	70.0	70.3	70.7	70.7	71.1
≥ 7000	36.9	47.4	53.7	63.5	66.1	66.2	69.7	71.5	71.7	73.1	73.7	74.1	74.5	74.8	74.8	75.2
≥ 6000	37.8	48.4	55.1	65.1	67.7	67.8	71.7	73.5	73.7	75.1	75.7	76.1	76.5	76.8	76.8	77.2
≥ 5000	38.8	50.3	57.1	67.7	70.5	70.6	74.6	76.5	76.7	78.1	78.7	79.1	79.5	79.8	79.8	80.2
≥ 4500	39.8	51.7	58.4	69.5	72.3	72.5	76.5	78.3	78.7	80.1	80.7	81.1	81.5	81.9	81.9	82.2
≥ 4000	40.3	53.9	60.7	72.2	75.6	75.7	79.7	81.9	82.4	84.0	84.6	85.0	85.4	85.9	85.9	86.2
≥ 3500	42.1	55.4	62.6	75.0	79.1	79.2	83.4	85.6	86.1	87.7	88.4	88.7	89.1	89.6	89.6	90.0
≥ 3000	43.3	56.9	64.1	77.2	81.7	82.0	86.6	88.9	89.4	91.0	91.6	92.0	92.4	92.9	92.9	93.2
≥ 2500	43.6	57.2	64.3	77.8	82.4	82.6	88.0	90.2	90.7	92.6	93.2	93.6	94.0	94.5	94.5	94.9
≥ 2000	43.6	57.8	65.0	78.6	83.1	83.4	88.7	91.0	91.5	93.4	94.0	94.4	94.7	95.2	95.2	95.6
≥ 1800	44.2	58.4	65.7	79.6	84.1	84.4	89.9	92.1	92.6	94.5	95.1	95.5	95.9	96.4	96.4	96.7
≥ 1600	44.2	58.4	65.7	79.6	84.5	84.7	90.6	92.9	93.4	95.2	95.9	96.2	96.6	97.1	97.1	97.5
≥ 1400	44.2	58.6	65.8	79.7	84.6	84.9	90.7	93.0	93.5	95.4	96.0	96.4	96.7	97.2	97.2	97.6
≥ 1200	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 1000	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 900	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 800	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 700	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 600	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 500	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 400	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 300	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 200	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 100	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 50	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 25	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 10	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 5	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 2	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 1	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 0.5	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 0.25	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 0.1	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 0.05	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 0.025	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7
≥ 0.01	44.2	58.6	65.8	79.7	84.7	85.0	90.9	93.1	93.6	95.5	96.1	96.5	96.9	97.4	97.4	97.7

TOTAL NUMBER OF OBSERVATIONS 799

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

CLERICAL CLIMATOLOGY BRANCH
USAF ETAC
AT WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION PAFEN OHR AAF DL

73-81

001

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

0200-0200

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005
NO CEILING	9.9	12.2	13.8	18.2	19.3	19.9	22.8	23.7	23.7	26.5	26.6	27.1	27.2	28.7	29.7	32.1
≥ 20000	10.6	13.7	15.2	20.7	22.1	22.7	26.1	27.2	27.2	30.0	30.1	30.6	30.7	31.7	33.0	36.0
≥ 18000	10.6	13.7	15.2	20.7	22.1	22.7	26.1	27.2	27.2	30.0	30.1	30.6	30.7	31.7	33.0	36.0
≥ 16000	10.6	13.7	15.2	20.7	22.1	22.7	26.1	27.2	27.2	30.0	30.1	30.6	30.7	31.7	33.0	36.0
≥ 14000	10.6	13.7	15.2	20.7	22.1	22.7	26.1	27.2	27.2	30.0	30.1	30.6	30.7	31.7	33.0	36.0
≥ 12000	10.6	13.7	15.2	20.7	22.1	22.7	26.1	27.2	27.2	30.0	30.1	30.6	30.7	31.7	33.0	36.0
≥ 10000	11.4	14.5	16.2	22.2	23.5	24.2	27.9	29.0	29.0	31.8	31.9	32.4	32.5	33.5	34.8	37.8
≥ 9000	11.4	14.5	16.2	22.2	23.5	24.2	27.9	29.0	29.0	31.8	31.9	32.4	32.5	33.5	34.8	37.8
≥ 8000	13.9	17.1	18.9	25.9	27.0	27.7	31.7	32.9	32.9	36.1	36.3	36.8	36.9	37.9	39.2	42.2
≥ 7000	14.4	18.1	20.4	27.2	28.7	29.4	33.3	34.7	34.7	38.0	38.2	38.7	38.8	39.8	41.1	44.1
≥ 6000	14.4	18.1	20.4	27.2	28.7	29.4	33.3	34.7	34.7	38.0	38.2	38.7	38.8	39.8	41.1	44.1
≥ 5000	15.7	18.9	21.2	28.4	30.2	30.9	34.9	36.3	36.3	39.7	39.9	40.4	40.5	41.5	42.8	45.8
≥ 4500	15.9	20.3	23.7	30.8	32.6	33.3	37.3	38.7	38.7	42.2	42.4	42.9	43.0	44.7	45.3	48.3
≥ 4000	18.2	23.4	26.9	35.4	37.2	38.1	42.7	44.2	44.2	48.1	48.3	48.9	49.0	50.2	51.6	54.7
≥ 3500	18.9	24.1	27.8	36.8	38.6	39.9	45.0	46.6	46.6	50.5	50.7	51.3	51.4	52.8	54.1	57.2
≥ 3000	20.5	26.4	30.5	41.7	42.9	44.4	49.5	51.3	51.3	55.5	55.8	56.4	56.7	58.4	59.7	62.8
≥ 2500	22.2	29.3	33.5	44.6	46.5	48.1	53.2	55.0	55.0	59.2	59.5	60.2	60.6	62.2	63.5	66.7
≥ 2000	22.2	30.8	35.7	47.8	50.0	51.8	57.1	59.4	59.4	63.5	63.8	64.5	64.9	66.5	67.9	71.0
≥ 1800	23.3	31.3	36.2	49.3	51.2	53.1	58.4	60.7	60.7	65.1	65.3	66.1	66.4	68.1	69.4	72.5
≥ 1600	25.2	33.8	38.7	52.3	55.5	57.4	62.8	65.1	65.2	70.1	70.4	71.1	71.5	73.1	74.5	77.6
≥ 1400	25.8	35.3	40.3	54.6	58.2	60.1	65.6	68.0	68.1	73.0	73.3	74.0	74.3	76.0	77.3	80.5
≥ 1200	26.1	35.7	41.0	55.9	59.6	61.6	67.7	70.1	70.5	75.4	75.7	76.4	76.7	78.4	79.9	83.0
≥ 1000	26.5	36.1	41.7	57.3	61.5	63.5	69.7	72.1	72.4	77.3	77.6	78.5	78.9	80.6	82.0	85.1
≥ 900	26.5	36.1	41.8	58.2	62.4	64.4	70.6	73.1	73.7	78.7	78.9	79.9	80.2	81.9	83.3	86.5
≥ 800	26.5	36.1	42.0	58.4	62.6	64.6	71.1	74.0	74.8	79.7	80.0	80.9	81.3	83.0	84.4	87.5
≥ 700	26.5	36.1	42.7	58.5	62.7	64.7	71.3	74.3	75.4	80.3	80.6	81.9	82.3	83.9	85.4	88.5
≥ 600	26.5	36.1	42.7	58.9	63.1	65.1	71.8	74.8	75.9	80.9	81.2	82.5	82.9	84.5	86.1	89.7
≥ 500	26.5	36.1	42.7	59.0	63.3	65.3	72.1	75.2	76.5	81.8	82.0	83.3	83.7	85.4	86.9	90.0
≥ 400	26.5	36.1	42.7	59.0	63.3	65.3	72.1	75.4	76.7	82.0	82.5	83.9	84.2	86.0	87.5	91.1
≥ 300	26.5	36.1	42.7	59.0	63.3	65.3	72.1	75.4	76.7	82.0	82.5	84.3	84.7	86.7	88.2	94.1
≥ 200	26.5	36.1	42.7	59.0	63.3	65.3	72.1	75.4	76.7	82.0	82.5	84.3	84.8	86.8	88.7	95.5
≥ 100	26.5	36.1	42.7	59.0	63.3	65.3	72.1	75.4	76.7	82.0	82.5	84.3	84.8	86.8	88.7	95.5

TOTAL NUMBER OF OBSERVATIONS 834

USAF ETAC FORM 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 0877 GRAFENWOHR AAF DL

73-61

067

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

0300-0500

CEILING FEET	VISIBILITY - STATUTE MILES														
	≥10	≥6	≥5	≥4	≥3	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	5.6	11.7	12.8	17.2	18.5	18.8	21.1	22.9	23.1	25.0	25.3	26.2	26.8	28.7	28.8
≥ 20000	9.1	12.4	13.7	19.0	20.4	22.7	23.5	25.3	25.6	27.7	28.1	29.0	29.6	30.9	31.3
≥ 18000	9.1	12.4	13.7	19.0	20.4	22.7	23.5	25.3	25.6	27.7	28.1	29.0	29.6	30.9	31.8
≥ 16000	9.1	12.4	13.7	19.0	20.4	22.7	23.5	25.3	25.6	27.7	28.1	29.0	29.6	30.9	31.8
≥ 14000	9.1	12.4	13.7	19.0	20.4	22.7	23.5	25.3	25.6	27.7	28.1	29.0	29.6	30.9	31.8
≥ 12000	9.1	12.4	13.7	19.0	20.4	22.7	23.5	25.3	25.6	27.7	28.1	29.0	29.6	30.9	31.8
≥ 10000	9.1	12.4	13.7	19.0	20.4	22.7	23.5	25.3	25.6	27.7	28.1	29.0	29.6	30.9	31.8
≥ 8000	9.1	12.4	13.7	19.0	20.4	22.7	23.5	25.3	25.6	27.7	28.1	29.0	29.6	30.9	31.8
≥ 6000	11.4	15.3	17.2	23.2	25.2	25.7	29.2	30.9	31.2	33.7	34.1	35.7	35.6	37.7	38.1
≥ 4000	11.4	15.3	17.2	23.2	25.2	25.7	29.2	30.9	31.2	33.7	34.1	35.7	35.6	37.7	38.1
≥ 2000	11.4	15.3	17.2	23.2	25.2	25.7	29.2	30.9	31.2	33.7	34.1	35.7	35.6	37.7	38.1
≥ 1000	11.4	15.3	17.2	23.2	25.2	25.7	29.2	30.9	31.2	33.7	34.1	35.7	35.6	37.7	38.1
≥ 800	11.4	15.3	17.2	23.2	25.2	25.7	29.2	30.9	31.2	33.7	34.1	35.7	35.6	37.7	38.1
≥ 600	11.4	15.3	17.2	23.2	25.2	25.7	29.2	30.9	31.2	33.7	34.1	35.7	35.6	37.7	38.1
≥ 400	11.4	15.3	17.2	23.2	25.2	25.7	29.2	30.9	31.2	33.7	34.1	35.7	35.6	37.7	38.1
≥ 200	11.4	15.3	17.2	23.2	25.2	25.7	29.2	30.9	31.2	33.7	34.1	35.7	35.6	37.7	38.1
≥ 100	11.4	15.3	17.2	23.2	25.2	25.7	29.2	30.9	31.2	33.7	34.1	35.7	35.6	37.7	38.1
≥ 50	11.4	15.3	17.2	23.2	25.2	25.7	29.2	30.9	31.2	33.7	34.1	35.7	35.6	37.7	38.1
≥ 25	11.4	15.3	17.2	23.2	25.2	25.7	29.2	30.9	31.2	33.7	34.1	35.7	35.6	37.7	38.1
≥ 10	11.4	15.3	17.2	23.2	25.2	25.7	29.2	30.9	31.2	33.7	34.1	35.7	35.6	37.7	38.1
≥ 5	11.4	15.3	17.2	23.2	25.2	25.7	29.2	30.9	31.2	33.7	34.1	35.7	35.6	37.7	38.1
≥ 2	11.4	15.3	17.2	23.2	25.2	25.7	29.2	30.9	31.2	33.7	34.1	35.7	35.6	37.7	38.1
≥ 1	11.4	15.3	17.2	23.2	25.2	25.7	29.2	30.9	31.2	33.7	34.1	35.7	35.6	37.7	38.1

TOTAL NUMBER OF OBSERVATIONS 837

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 0-77 GRAFENWOHR AAF DL

73-81

DCI

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

0000-1100

CEILING FEET	VISIBILITY - STATUTE MILES															
	≥10	≥8	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.75	≥0.5	≥0.25	≥0.1	≥0.05	≥0.01	≥0.00
NO CEILING	7.4	11.7	11.9	16.0	17.7	17.8	19.3	19.0	19.1	19.4	19.5	19.7	19.8	20.4	20.5	20.9
≥20000	9.4	13.3	14.9	20.0	22.2	22.3	23.9	23.9	24.0	24.3	24.4	24.6	24.7	25.7	25.4	25.8
≥18000	9.8	14.0	15.8	21.0	23.3	23.5	25.1	25.1	25.2	25.4	25.6	25.8	25.9	26.5	26.6	27.0
≥16000	9.8	14.0	15.8	21.0	23.3	23.5	25.1	25.1	25.2	25.4	25.6	25.8	25.9	26.5	26.6	27.0
≥14000	9.8	14.0	15.8	21.0	23.3	23.5	25.2	25.2	25.3	25.6	25.7	25.9	26.1	26.6	26.5	27.1
≥12000	9.9	14.6	16.4	21.6	24.0	24.3	25.8	25.8	25.9	26.2	26.3	26.5	26.6	27.2	27.4	27.7
≥10000	10.2	14.8	16.7	23.1	25.6	25.8	27.5	27.6	27.8	28.1	28.2	28.4	28.6	29.2	29.7	29.6
≥9000	10.2	14.8	16.8	23.4	26.0	26.3	28.1	28.2	28.4	28.7	28.8	29.2	29.2	29.7	29.9	30.2
≥8000	11.8	17.2	19.5	26.9	29.5	29.7	31.8	32.0	32.3	32.5	32.6	32.9	33.7	33.6	33.7	34.1
≥7000	12.2	18.0	20.4	28.6	31.7	32.0	34.2	34.5	34.8	35.0	35.1	35.4	35.5	36.2	36.7	36.7
≥6000	12.2	18.0	20.4	28.6	31.7	32.0	34.2	34.5	34.8	35.0	35.1	35.4	35.5	36.2	36.7	36.7
≥5000	13.4	19.2	21.6	30.8	34.1	34.5	36.8	37.3	37.5	37.8	37.9	38.1	38.2	38.9	39.1	39.4
≥4500	13.7	19.7	22.2	31.7	35.0	35.4	37.8	38.2	38.5	38.7	39.1	39.3	39.4	40.1	40.3	40.6
≥4000	16.4	23.2	25.8	36.0	39.4	39.8	42.5	43.5	43.7	44.0	44.3	44.7	44.8	45.5	45.6	46.2
≥3500	17.6	24.5	27.7	38.4	41.9	42.4	45.5	46.7	47.2	47.9	48.3	48.6	48.7	49.5	49.6	49.9
≥3000	19.2	27.1	30.6	42.3	46.1	46.6	50.3	51.6	52.2	52.7	53.3	53.6	53.8	54.5	54.6	55.2
≥2500	20.7	29.3	32.9	45.4	49.7	50.2	54.2	55.6	56.2	57.0	57.3	57.7	57.8	58.5	58.7	59.7
≥2000	22.7	32.0	36.2	49.7	54.5	55.2	59.5	60.9	61.6	62.7	63.1	63.6	63.7	64.4	64.5	65.1
≥1800	22.8	32.9	37.2	50.9	55.9	56.8	61.1	62.5	63.2	64.3	64.6	65.1	65.2	65.9	66.1	66.7
≥1600	24.1	35.0	39.8	55.6	60.6	61.4	65.8	67.5	68.2	69.3	69.7	70.1	70.3	71.7	71.1	71.7
≥1400	24.5	36.1	41.7	59.3	64.8	65.6	70.4	72.2	72.9	74.0	74.3	74.8	74.9	75.6	75.7	76.3
≥1200	25.1	37.3	43.2	61.8	68.1	69.1	74.1	75.9	76.7	78.1	78.6	79.2	79.3	80.0	80.2	80.8
≥1000	25.3	37.6	43.6	62.7	69.1	70.0	75.6	77.5	78.4	79.8	80.6	81.2	81.4	82.1	82.2	82.8
≥900	25.6	37.9	43.8	63.2	70.0	71.1	76.9	79.0	79.8	81.2	82.1	82.7	82.8	83.5	83.6	84.2
≥800	25.6	38.1	44.1	64.3	71.3	72.4	78.7	81.0	81.8	83.5	84.3	84.9	85.2	85.9	86.7	86.6
≥700	25.6	38.0	44.1	64.4	71.6	72.6	79.5	81.8	82.7	84.8	85.7	86.3	86.5	87.2	87.3	87.9
≥600	25.6	38.0	44.1	64.4	71.6	72.9	79.9	82.8	83.8	86.3	87.1	87.8	88.3	89.7	89.1	89.7
≥500	25.6	38.0	44.1	64.4	71.6	72.9	80.7	83.2	84.5	87.8	88.9	89.7	90.3	91.5	91.8	92.6
≥400	25.6	38.0	44.1	64.4	71.6	72.9	80.2	83.3	84.7	88.2	89.4	90.2	91.2	92.7	93.5	94.5
≥300	25.6	38.0	44.1	64.4	71.6	72.9	80.3	83.4	84.8	88.3	89.5	90.3	91.3	93.7	95.5	97.7
≥200	25.6	38.0	44.1	64.4	71.6	72.9	80.3	83.4	84.8	88.3	89.5	90.3	91.3	93.8	95.8	99.6
≥100	25.6	38.0	44.1	64.4	71.6	72.9	80.3	83.4	84.8	88.3	89.5	90.3	91.3	93.8	95.8	100.0

TOTAL NUMBER OF OBSERVATIONS 637

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AT WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION GRAFFENWOHR AAF, DL

73-81

QCT

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1200-1400

CEILING FEET	VISIBILITY, STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005
NO CEILING	12.2	17.9	19.1	24.0	25.3	25.3	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7
≥20000	15.4	22.3	23.7	29.7	31.4	31.4	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8
≥18000	16.1	23.5	25.1	31.1	32.9	32.9	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
≥16000	16.1	23.5	25.1	31.1	32.9	32.9	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
≥14000	16.2	23.7	25.1	31.2	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3
≥12000	17.0	24.4	25.4	32.3	33.8	33.8	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.2	34.2
≥10000	18.0	25.8	27.2	33.7	35.6	35.6	36.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3
≥9000	18.3	26.2	27.6	34.2	36.1	36.1	36.8	36.8	36.8	36.8	36.8	36.8	36.8	36.8	36.8	36.8
≥8000	20.1	28.7	30.3	37.0	38.9	38.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9
≥7000	20.3	30.1	31.8	39.1	41.0	41.0	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9
≥6000	20.9	30.2	31.9	39.2	41.1	41.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1
≥5000	22.9	32.5	34.3	41.6	43.6	43.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6
≥4500	23.7	33.3	35.1	42.4	44.4	44.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4	45.4
≥4000	27.2	37.8	39.8	47.8	50.3	50.3	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4	51.4
≥3500	37.6	42.1	44.3	52.8	55.3	55.3	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6	56.6
≥3000	34.5	47.9	51.3	59.3	62.7	62.7	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6	63.6
≥2500	37.3	51.7	54.1	63.6	66.8	66.8	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3	68.3
≥2000	39.9	56.7	58.9	68.9	72.6	72.6	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3	74.3
≥1800	40.6	57.0	60.0	70.4	74.3	74.3	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1	76.1
≥1600	42.3	59.7	63.2	74.7	79.1	79.1	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2	81.2
≥1400	43.4	61.8	66.1	79.5	84.3	84.3	86.9	88.2	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6
≥1200	43.9	62.6	67.3	81.8	87.0	87.2	89.8	91.3	91.8	91.8	91.8	91.8	91.8	91.8	91.8	91.8
≥1000	44.1	63.7	67.6	82.4	87.6	87.8	90.4	91.9	92.4	92.5	92.5	92.5	92.5	92.5	92.5	92.5
≥900	44.1	63.7	67.6	82.6	88.2	88.4	91.4	93.0	93.4	93.5	93.5	93.5	93.5	93.5	93.5	93.5
≥800	44.1	63.7	67.6	82.6	88.2	88.4	91.4	93.0	93.4	93.5	93.5	93.5	93.5	93.5	93.5	93.5
≥700	44.1	63.7	67.6	83.2	88.8	89.0	92.4	94.1	94.6	94.7	94.7	94.7	94.7	94.7	94.7	94.7
≥600	44.1	63.7	67.6	83.5	89.1	89.4	93.2	95.7	96.2	96.4	96.4	96.4	96.4	96.4	96.4	96.4
≥500	44.1	63.7	67.6	83.5	89.2	89.5	93.5	96.3	96.8	97.3	97.5	97.5	97.5	97.5	97.5	97.5
≥400	44.1	63.7	67.6	83.5	89.5	89.8	94.1	97.1	97.7	98.6	98.8	98.9	98.9	98.9	98.9	98.9
≥300	44.1	63.7	67.6	83.5	89.5	89.8	94.1	97.3	98.0	99.0	99.4	99.5	99.6	99.8	99.8	99.8
≥200	44.1	63.7	67.6	83.5	89.5	89.8	94.1	97.3	98.0	99.2	99.5	99.6	99.8	100.0	100.0	100.0
≥100	44.1	63.7	67.6	83.5	89.5	89.8	94.1	97.3	98.0	99.2	99.5	99.6	99.8	100.0	100.0	100.0
≥0	44.1	63.7	67.6	83.5	89.5	89.8	94.1	97.3	98.0	99.2	99.5	99.6	99.8	100.0	100.0	100.0

TOTAL NUMBER OF OBSERVATIONS 837

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

CLIMATOLGY BRANCH
USAF ETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1. 6577 GRAFENWHR AAF DL

73-81

CCY

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

15.2-17.2

CEILING FEET	VISIBILITY - STATUTE MILES															
	≥ 10	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
NO CEILING	16.4	22.6	24.9	29.7	31.1	31.1	31.4	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7	31.7
≥ 20000	19.5	27.7	37.6	36.3	39.0	38.0	38.6	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8	38.8
≥ 18000	19.8	28.4	31.5	37.4	39.1	39.1	39.7	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9
≥ 16000	19.8	28.4	31.5	37.4	39.1	39.1	39.7	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9
≥ 14000	19.8	28.4	31.5	37.4	39.1	39.1	39.7	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9	39.9
≥ 12000	22.7	29.4	32.5	38.4	42.0	42.0	42.6	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9
≥ 10000	21.3	30.1	33.2	39.3	41.1	41.1	41.7	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9	41.9
≥ 9000	22.2	31.4	34.5	40.6	42.4	42.4	43.0	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2
≥ 8000	25.3	35.5	38.9	45.0	46.8	46.8	47.6	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8
≥ 7000	27.2	37.4	41.7	47.0	48.7	48.7	49.6	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8	49.8
≥ 6000	27.2	37.9	41.2	47.6	49.3	49.3	50.2	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4
≥ 5000	28.6	39.4	42.8	49.2	51.1	51.1	52.0	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2	52.2
≥ 4500	29.9	41.1	44.3	51.0	52.9	52.9	54.0	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2	54.2
≥ 4000	33.2	46.7	49.9	57.7	59.9	59.9	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2
≥ 3500	36.9	51.3	55.6	63.1	65.1	65.2	66.5	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8	66.8
≥ 3000	40.5	56.4	61.2	69.5	71.8	72.7	73.4	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6	73.6
≥ 2500	42.7	59.5	64.5	72.9	75.3	75.5	76.9	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2	77.2
≥ 2000	44.7	62.8	68.5	77.1	79.9	80.2	81.7	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2	82.2
≥ 1800	45.2	63.4	69.1	77.8	80.6	81.1	82.7	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3	83.3
≥ 1600	46.5	65.1	71.9	80.8	84.0	84.5	86.0	86.6	86.6	86.7	86.7	86.7	86.7	86.7	86.7	86.7
≥ 1400	47.2	66.5	74.1	85.1	88.6	89.1	91.4	92.0	92.1	92.2	92.2	92.2	92.2	92.2	92.2	92.2
≥ 1200	47.2	66.9	74.7	86.5	90.6	91.0	93.5	94.3	94.4	94.5	94.6	94.6	94.6	94.6	94.6	94.6
≥ 1000	47.2	66.9	74.7	86.6	91.7	91.2	93.7	94.4	94.5	94.6	94.7	94.7	94.7	94.7	94.7	94.7
≥ 900	47.2	66.9	74.7	86.7	91.8	91.5	94.5	95.6	95.7	95.9	96.1	96.1	96.1	96.1	96.1	96.1
≥ 800	47.2	66.9	75.3	87.7	91.9	92.6	95.9	97.1	97.3	97.5	97.6	97.6	97.6	97.6	97.6	97.6
≥ 700	47.2	66.9	75.3	87.7	92.2	93.1	96.8	98.3	98.6	98.9	99.0	99.0	99.0	99.0	99.0	99.0
≥ 600	47.2	66.9	75.3	87.7	92.2	93.1	96.8	98.3	98.6	98.9	99.0	99.0	99.0	99.0	99.0	99.0
≥ 500	47.2	66.9	75.3	87.7	92.2	93.1	96.8	98.3	98.6	98.9	99.0	99.0	99.0	99.0	99.0	99.0
≥ 400	47.2	66.9	75.3	87.7	92.2	93.1	96.8	98.3	98.6	98.9	99.0	99.0	99.0	99.0	99.0	99.0
≥ 300	47.2	66.9	75.3	87.7	92.2	93.1	96.8	98.3	98.6	98.9	99.0	99.0	99.0	99.0	99.0	99.0
≥ 200	47.2	66.9	75.3	87.7	92.2	93.1	96.8	98.3	98.6	98.9	99.0	99.0	99.0	99.0	99.0	99.0
≥ 100	47.2	66.9	75.3	87.7	92.2	93.1	96.8	98.3	98.6	98.9	99.0	99.0	99.0	99.0	99.0	99.0
≥ 50	47.2	66.9	75.3	87.7	92.2	93.1	96.8	98.3	98.6	98.9	99.0	99.0	99.0	99.0	99.0	99.0
≥ 20	47.2	66.9	75.3	87.7	92.2	93.1	96.8	98.3	98.6	98.9	99.0	99.0	99.0	99.0	99.0	99.0
≥ 10	47.2	66.9	75.3	87.7	92.2	93.1	96.8	98.3	98.6	98.9	99.0	99.0	99.0	99.0	99.0	99.0

TOTAL NUMBER OF OBSERVATIONS 837

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AT WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 73-81 GRAFENWOHP AAF DL

73-81

207

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1870-2000

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005
NO CEILING	12.2	17.7	27.8	27.5	29.4	30.0	31.4	32.5	32.5	33.5	33.5	33.5	33.5	33.6	34.3	34.9
≥20000	13.9	23.3	24.7	31.5	33.8	34.4	36.6	38.0	38.1	39.2	39.2	39.3	39.3	40.0	40.6	40.9
≥18000	13.5	27.3	24.7	32.6	34.9	35.5	37.6	39.1	39.2	40.3	40.3	40.4	40.4	41.1	41.7	41.9
≥16000	13.5	23.3	24.7	32.6	34.9	35.5	37.6	39.1	39.2	40.3	40.3	40.4	40.4	41.1	41.7	41.9
≥14000	13.5	27.3	24.7	32.6	34.9	35.5	37.6	39.1	39.2	40.3	40.3	40.4	40.4	41.1	41.7	41.9
≥12000	14.3	21.1	25.6	33.5	35.7	36.3	38.5	39.9	40.0	41.2	41.2	41.3	41.3	42.1	42.7	42.9
≥10000	14.7	21.7	26.2	34.4	36.8	37.4	39.5	41.0	41.1	42.4	42.4	42.5	42.5	43.2	43.8	44.1
≥9000	14.9	22.0	26.4	35.0	37.5	38.1	40.3	41.7	41.8	43.1	43.1	43.2	43.2	44.0	44.6	44.8
≥8000	19.4	27.1	31.9	41.2	44.0	44.6	46.7	48.1	48.3	49.6	49.6	49.7	49.7	50.4	51.7	51.3
≥7000	21.1	29.2	33.9	43.2	46.0	46.6	49.2	50.7	50.8	52.1	52.1	52.2	52.2	53.0	53.6	53.9
≥6000	21.6	29.6	34.4	43.8	46.6	47.2	49.8	51.6	51.7	53.0	53.0	53.2	53.2	54.0	54.6	54.8
≥5000	22.9	31.2	36.1	46.1	49.0	49.6	52.4	54.2	54.4	55.7	55.7	55.8	55.8	56.6	57.2	57.5
≥4500	24.1	32.9	37.9	48.5	51.4	52.0	55.0	56.9	57.0	58.3	58.3	58.4	58.4	59.3	59.9	60.1
≥4000	25.4	35.1	40.9	52.1	55.3	55.9	58.9	60.9	61.1	62.5	62.5	62.6	62.6	63.4	64.0	64.3
≥3500	27.8	38.5	44.9	56.9	60.1	60.7	63.7	65.7	65.8	67.3	67.3	67.4	67.4	68.2	68.8	69.1
≥3000	29.4	41.0	48.5	61.5	64.9	65.5	68.5	70.5	70.6	72.0	72.0	72.2	72.2	73.0	73.6	73.8
≥2500	30.9	43.0	50.5	63.9	67.7	68.3	71.4	73.5	73.6	75.0	75.0	75.1	75.1	76.0	76.6	76.8
≥2000	32.7	45.6	53.5	68.1	72.3	73.0	76.5	78.6	78.7	80.5	80.5	80.6	80.6	81.5	82.1	82.3
≥1800	33.0	46.0	54.4	68.9	73.1	73.8	77.7	79.9	80.7	81.8	81.8	82.0	82.0	82.8	83.4	83.6
≥1600	33.8	47.6	56.3	72.2	76.5	77.2	81.4	83.8	83.9	85.8	85.8	85.9	85.9	86.7	87.3	87.6
≥1400	33.2	48.3	57.1	74.4	78.9	79.7	84.8	87.5	87.7	89.6	89.6	89.7	89.7	90.6	91.2	91.4
≥1200	33.9	48.3	57.2	75.5	80.2	81.2	86.4	89.1	89.7	91.6	91.6	91.8	91.8	92.6	93.2	93.4
≥1000	33.9	48.3	57.2	75.5	80.2	81.2	86.6	89.6	90.2	92.2	92.2	92.4	92.4	93.2	93.8	94.0
≥900	33.9	48.3	57.2	76.0	80.8	81.8	87.2	90.4	91.4	93.4	93.4	93.5	93.5	94.4	95.0	95.2
≥800	33.9	48.3	57.2	76.8	81.6	82.7	88.3	91.6	92.6	94.9	94.9	95.0	95.0	95.8	96.4	96.7
≥700	33.9	48.3	57.2	76.8	81.6	82.9	88.9	92.6	93.5	95.9	95.9	96.1	96.1	96.9	97.5	97.7
≥600	33.9	48.3	57.2	76.8	81.6	82.9	89.1	92.8	93.8	96.2	96.2	96.3	96.3	97.1	97.7	98.0
≥500	33.9	48.3	57.2	76.8	81.6	82.9	89.1	92.8	93.8	96.2	96.2	96.3	96.3	97.1	97.7	98.0
≥400	33.9	48.3	57.2	76.8	81.6	82.9	89.1	93.0	93.9	96.3	96.3	96.4	96.4	97.3	97.8	98.1
≥300	33.9	48.3	57.2	76.8	81.6	82.9	89.1	93.0	93.9	96.3	96.3	96.4	96.4	97.3	97.8	98.1
≥200	33.9	48.3	57.2	76.8	81.6	82.9	89.1	93.0	93.9	96.3	96.3	96.4	96.4	97.6	98.6	99.5
≥100	33.9	48.3	57.2	76.8	81.6	82.9	89.1	93.0	93.9	96.3	96.3	96.4	96.4	97.6	98.6	99.5
≥0	33.9	48.3	57.2	76.8	81.6	82.9	89.1	93.0	93.9	96.3	96.3	96.4	96.4	97.6	98.6	99.5

TOTAL NUMBER OF OBSERVATIONS 837

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1972

GRAFENWOHR AAF DL

73-81

261

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

2132-2300

CEILING FEET	VISIBILITY STATUTE MILES															
	20	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
1000	11.1	15.1	17.2	22.5	25.2	25.7	28.6	30.0	30.1	31.4	31.7	31.7	32.3	33.3	34.2	36.0
900	11.3	16.5	19.1	26.3	28.0	28.6	31.9	33.5	33.7	35.0	35.2	35.2	35.8	36.9	37.9	40.5
800	11.3	16.5	19.1	26.3	28.0	28.6	31.9	33.5	33.7	35.0	35.2	35.2	35.8	36.9	37.9	40.5
700	11.3	16.5	19.1	26.3	28.0	28.6	31.9	33.5	33.7	35.0	35.2	35.2	35.8	36.9	37.9	40.5
600	12.2	16.8	19.5	27.1	28.8	29.4	32.7	34.3	34.5	36.2	36.4	36.4	37.0	38.1	39.1	41.7
500	12.8	17.6	20.2	28.1	29.9	30.5	33.8	35.4	35.6	37.3	37.5	37.5	38.1	39.2	40.1	42.9
400	13.1	18.0	20.7	29.8	30.8	31.4	34.8	36.3	36.6	38.2	38.5	38.5	39.1	40.1	41.1	43.8
300	16.7	21.4	24.4	33.1	35.6	35.2	39.9	41.7	41.9	43.7	44.1	44.1	44.7	45.8	46.7	49.5
200	17.2	23.2	26.9	36.0	38.6	39.2	42.9	44.7	44.9	46.7	47.1	47.1	47.7	48.7	49.7	52.4
100	17.3	23.7	27.5	36.7	39.3	39.9	43.6	45.4	45.6	47.4	47.8	47.8	48.4	49.5	50.4	53.2
50	17.7	24.1	28.0	37.5	40.1	40.7	44.6	46.4	46.6	48.4	48.7	48.7	49.3	50.4	51.4	54.1
40	19.7	25.8	30.0	39.9	42.5	43.1	47.2	49.0	49.2	51.0	51.4	51.7	52.3	53.4	54.5	57.2
30	21.1	28.3	33.7	44.3	47.2	47.9	52.3	54.2	54.6	56.8	57.1	57.5	58.1	59.1	60.2	63.0
20	22.5	30.1	36.1	47.0	49.9	50.7	55.2	57.1	57.5	59.6	60.0	60.3	60.9	62.0	63.1	65.8
10	27.9	32.1	39.4	50.8	54.2	55.3	62.1	62.0	62.4	64.5	64.9	65.2	65.8	67.0	68.1	70.8
5	25.6	34.2	41.8	53.5	57.3	58.4	63.3	65.2	65.6	67.7	68.1	68.5	69.1	70.3	71.3	74.1
2	27.1	36.7	44.8	57.3	61.3	62.4	67.4	69.5	70.0	72.3	72.6	73.2	73.6	74.8	75.9	78.6
1	27.1	36.7	44.8	57.7	62.1	63.3	68.6	70.7	71.2	73.5	73.8	74.2	74.8	76.0	77.1	79.8
0	28.1	37.6	45.0	60.9	65.7	66.9	72.3	74.7	75.3	77.5	77.9	78.3	78.9	80.0	81.1	83.9
200	28.3	38.6	47.7	62.8	69.0	69.3	74.7	77.1	77.8	80.3	80.6	81.1	81.7	82.9	84.0	86.7
100	28.4	39.2	48.7	64.8	70.0	71.3	76.9	79.3	80.4	82.9	83.4	83.9	84.5	85.7	86.7	89.5
50	28.6	39.3	48.1	65.2	70.6	71.9	77.5	79.9	81.0	83.5	84.0	84.5	85.1	86.3	87.3	90.1
20	28.6	39.3	48.1	65.7	71.1	72.4	78.0	80.8	82.0	84.5	84.9	85.4	86.0	87.2	88.3	91.0
10	28.6	39.3	48.3	67.1	72.5	73.8	79.6	82.4	83.8	86.4	86.9	87.3	87.9	89.1	90.2	93.0
5	28.6	39.3	48.3	67.3	72.5	73.8	80.0	83.2	84.5	87.2	87.7	88.2	89.0	90.2	91.3	94.0
2	28.6	39.3	48.3	67.0	72.5	73.8	80.0	83.5	84.9	87.7	88.2	88.6	89.5	90.7	91.8	94.6
1	28.6	39.3	48.3	67.0	72.5	73.8	80.0	83.5	84.9	87.7	88.3	88.8	89.6	90.9	92.0	95.0
0	28.6	39.3	48.3	67.0	72.5	73.8	80.0	83.8	85.2	87.9	88.6	89.1	90.0	91.3	92.4	95.3
200	28.6	39.3	48.3	67.0	72.5	73.8	80.0	83.8	85.2	87.9	88.6	89.2	90.1	91.4	92.7	95.8
100	28.6	39.3	48.3	67.0	72.5	73.8	80.0	83.8	85.2	87.9	88.6	89.4	90.3	91.6	93.0	97.5
50	28.6	39.3	48.3	67.0	72.5	73.8	80.0	83.8	85.2	87.9	88.6	89.4	90.3	91.6	93.0	100.0

TOTAL NUMBER OF OBSERVATIONS 837

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 8375 GRAFENWOHP AAF DL

73-31

0CT

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

ALL

CEILING FEET	VISIBILITY STATUTE MILES															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2.5	≥ 2	≥ 1.5	≥ 1	≥ .75	≥ .5	≥ .25	≥ .1	≥ .05	≥ .01	≥ .001
NO. CEILING	10.3	14.6	16.3	21.1	22.5	22.8	24.4	25.1	25.2	26.2	26.4	26.7	26.9	27.5	27.9	29.5
2 2000	11.9	17.0	19.1	24.8	26.5	26.9	28.8	29.7	29.8	30.9	31.1	31.4	31.6	32.3	32.8	34.4
2 1800	12.1	17.4	19.6	25.4	27.1	27.5	29.4	30.3	30.4	31.6	31.9	32.1	32.3	32.9	33.5	35.1
2 1600	12.1	17.4	19.6	25.4	27.1	27.5	29.4	30.3	30.4	31.6	31.9	32.1	32.3	32.9	33.5	35.1
2 1400	12.1	17.4	19.6	25.4	27.1	27.5	29.4	30.3	30.4	31.6	31.9	32.1	32.3	33.0	33.6	35.1
2 1200	12.6	18.1	20.2	26.1	27.9	28.3	30.2	31.1	31.2	32.4	32.6	32.9	33.1	33.8	34.4	35.9
2 1000	13.1	18.6	20.9	27.2	29.2	29.6	31.6	32.5	32.7	34.0	34.2	34.5	34.7	35.4	35.9	37.5
2 900	13.3	18.9	21.2	27.7	29.7	30.1	32.1	33.1	33.2	34.6	34.7	35.0	35.3	35.9	36.5	38.1
2 800	15.7	21.9	24.4	31.4	33.7	34.1	36.4	37.4	37.5	39.0	39.2	39.5	39.7	40.4	41.0	42.6
2 700	16.7	23.1	25.9	33.3	35.7	36.1	38.6	39.7	39.8	41.3	41.5	41.8	42.1	42.8	43.4	45.0
2 600	16.9	23.4	26.1	33.6	36.0	36.4	38.9	40.0	40.2	41.7	41.9	42.2	42.4	43.2	43.8	45.4
2 500	17.8	24.5	27.3	35.3	37.9	38.3	40.9	42.1	42.2	43.7	43.9	44.2	44.5	45.2	45.8	47.4
2 400	18.8	25.9	28.9	37.1	39.8	40.3	42.9	44.1	44.3	45.8	46.1	46.4	46.7	47.4	48.0	49.6
2 300	21.1	28.9	32.5	41.4	44.2	44.8	47.8	49.1	49.3	51.0	51.2	51.6	51.9	52.7	53.4	55.1
2 200	24.8	34.3	38.8	49.2	52.1	52.9	56.3	57.8	58.0	60.0	60.3	60.7	61.0	62.0	62.6	64.3
2 1500	26.4	36.7	41.4	52.0	55.5	56.3	59.8	61.4	61.6	63.6	63.9	64.4	64.7	65.6	66.3	68.0
2 1000	28.1	39.3	44.6	56.2	59.9	60.8	64.6	66.3	66.7	68.8	69.1	69.5	69.9	70.8	71.5	73.2
2 800	28.4	39.8	45.2	57.1	61.0	62.0	65.8	67.6	68.0	70.1	70.4	70.9	71.2	72.2	72.8	74.6
2 700	29.8	41.8	47.6	60.8	65.2	66.2	70.2	72.2	72.6	74.8	75.1	75.6	76.0	77.0	77.6	79.3
2 600	30.3	43.0	49.3	63.8	68.7	69.7	74.2	76.4	76.9	79.2	79.5	80.1	80.4	81.4	82.1	83.8
2 500	30.5	43.5	50.2	65.7	70.8	71.9	76.6	78.8	79.5	81.9	82.3	82.8	83.2	84.2	84.9	86.6
2 400	30.9	43.7	50.4	66.3	71.5	72.7	77.5	79.8	80.5	82.9	83.3	83.9	84.3	85.3	86.0	87.7
2 300	30.9	43.7	50.5	66.4	72.3	73.4	78.5	81.0	81.7	84.2	84.6	85.2	85.6	86.6	87.3	89.0
2 200	30.9	43.8	50.7	67.7	73.2	74.4	79.9	82.6	83.4	86.0	86.4	87.0	87.4	88.4	89.1	90.8
2 1500	30.9	43.8	50.7	67.8	73.4	74.7	80.5	83.5	84.3	87.1	87.5	88.2	88.6	89.6	90.3	92.1
2 1000	30.9	43.8	50.7	67.9	73.5	74.8	80.8	83.9	84.8	87.6	88.1	88.8	89.3	90.3	91.0	92.8
2 800	30.9	43.8	50.7	67.9	73.6	74.9	80.9	84.2	85.3	88.4	88.9	89.7	90.2	91.3	92.1	93.9
2 700	30.9	43.8	50.7	67.9	73.6	74.9	80.9	84.3	85.5	88.7	89.3	90.2	90.8	92.1	93.0	95.2
2 600	30.9	43.8	50.7	67.9	73.6	74.9	80.9	84.3	85.5	88.7	89.4	90.3	91.0	92.5	93.7	96.9
2 500	30.9	43.8	50.7	67.9	73.6	74.9	80.9	84.3	85.5	88.7	89.4	90.4	91.0	92.7	94.1	98.3
2 400	30.9	43.8	50.7	67.9	73.6	74.9	80.9	84.3	85.5	88.7	89.4	90.4	91.0	92.7	94.1	98.3

TOTAL NUMBER OF OBSERVATIONS 6692

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
ATTN: WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION: GRAFENWOHR AAF DL

73-81

NOV

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1000-2200

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005
NO CEILING	9.8	12.4	13.6	18.5	19.0	19.0	21.1	23.4	27.4	24.2	24.2	24.2	24.4	26.7	26.5	28.1
≥ 20000	17.2	13.2	14.6	19.7	27.4	20.4	22.7	25.0	25.0	25.9	25.9	25.9	26.7	27.6	28.1	29.9
≥ 18000	10.2	13.2	14.6	19.7	27.4	20.4	23.0	25.3	25.3	26.1	26.1	26.1	26.3	27.9	28.4	30.0
≥ 16000	10.2	13.2	14.6	19.7	27.4	20.4	23.0	25.3	25.3	26.1	26.1	26.1	26.3	27.9	28.4	30.0
≥ 14000	10.2	13.2	14.6	19.7	27.4	20.4	23.0	25.3	25.3	26.1	26.1	26.1	26.3	27.9	28.4	30.0
≥ 12000	10.4	13.4	14.8	20.1	27.7	20.7	23.4	25.6	25.6	26.5	26.5	26.5	26.6	28.3	28.8	30.4
≥ 10000	10.4	13.4	15.2	20.5	21.2	21.2	23.9	26.3	26.3	27.1	27.1	27.1	27.3	28.9	29.4	31.0
≥ 9000	10.4	13.4	15.2	20.5	21.2	21.2	23.9	26.3	26.3	27.1	27.1	27.1	27.3	28.9	29.4	31.0
≥ 8000	10.7	13.6	15.8	21.7	22.7	22.7	25.5	28.1	28.1	29.0	29.0	29.1	29.4	31.7	31.7	33.3
≥ 7000	11.2	14.4	16.7	22.9	24.2	24.2	27.0	29.6	29.6	30.5	30.5	30.7	30.9	32.5	33.2	34.8
≥ 6000	11.2	14.4	16.7	22.9	24.2	24.2	27.0	29.6	29.6	30.5	30.5	30.7	30.9	32.5	33.2	34.8
≥ 5000	12.4	16.3	19.7	25.5	27.1	27.1	29.9	32.9	32.9	33.8	33.8	33.9	34.2	35.9	36.6	38.2
≥ 4500	13.4	17.7	20.7	28.4	30.0	30.0	33.4	36.7	36.7	37.9	37.9	38.1	38.3	40.2	40.8	42.5
≥ 4000	14.7	19.7	22.7	30.8	32.9	33.0	36.6	40.1	40.2	41.6	41.6	41.7	42.2	44.0	44.6	46.2
≥ 3500	15.6	21.7	24.2	32.9	35.2	35.3	39.2	42.7	42.8	44.3	44.3	44.5	44.7	46.9	47.5	49.1
≥ 3000	17.1	23.4	27.1	36.1	38.3	38.4	42.8	46.7	46.9	48.6	48.6	48.7	49.0	51.3	51.9	53.5
≥ 2500	18.2	25.1	29.1	39.7	42.0	42.1	46.5	50.4	50.5	52.4	52.4	52.5	52.8	55.7	55.9	57.5
≥ 2000	19.7	27.3	31.4	42.8	45.1	45.2	49.7	53.9	54.2	56.2	56.2	56.3	56.5	58.8	59.7	61.3
≥ 1800	20.1	27.6	32.0	44.2	46.7	47.1	51.6	56.0	56.3	58.4	58.4	58.5	58.8	61.1	61.9	63.6
≥ 1500	21.4	29.8	34.4	48.6	51.3	51.8	57.2	62.4	62.7	64.9	64.9	65.1	65.3	67.6	68.5	70.1
≥ 1200	21.7	30.4	35.9	52.0	55.5	56.0	62.2	68.3	69.0	71.5	71.5	71.6	71.9	74.2	75.1	76.8
≥ 1000	22.4	30.9	36.9	55.2	59.3	59.8	66.6	73.4	74.1	76.9	76.9	77.0	77.3	79.6	80.5	82.2
≥ 900	22.4	30.9	36.9	55.3	60.2	60.7	67.6	74.7	75.5	78.5	78.6	78.8	79.0	81.4	82.5	84.2
≥ 800	22.7	31.4	37.4	56.4	61.3	61.8	69.1	76.3	77.1	80.2	80.3	80.4	80.9	83.3	84.4	86.1
≥ 700	22.7	31.4	37.4	56.8	61.8	62.3	70.1	77.3	78.1	81.8	81.9	82.2	82.7	85.1	86.2	87.8
≥ 600	22.7	31.4	37.4	57.3	62.7	63.2	71.6	78.8	79.6	83.7	83.8	84.0	84.5	86.9	88.1	89.7
≥ 500	22.7	31.4	37.6	57.8	63.3	63.8	72.6	79.8	80.9	85.1	85.3	85.6	86.1	88.4	89.6	91.2
≥ 400	22.9	31.5	37.7	57.9	63.4	64.3	73.1	80.7	82.3	87.8	88.1	88.6	89.1	91.5	92.6	94.2
≥ 300	23.1	31.8	37.9	58.2	63.7	64.6	73.4	81.3	83.0	89.2	89.4	90.1	90.6	93.7	94.1	95.7
≥ 200	23.1	31.8	37.9	58.2	63.7	64.6	73.4	81.3	83.0	89.4	89.8	90.6	91.1	94.1	95.5	97.9
≥ 100	23.1	31.8	37.9	58.2	63.7	64.6	73.4	81.3	83.2	89.7	90.1	90.8	91.5	94.7	96.4	99.1
≥ 50	23.1	31.8	37.9	58.2	63.7	64.6	73.4	81.3	83.2	89.7	90.1	90.8	91.5	94.7	96.6	100.0

TOTAL NUMBER OF OBSERVATIONS 796

GLOBAL CLIMATOLOGY BRANCH
U.S. AFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 147 GRAFENWOHR AAF DL

73-61

NOV

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

300-3500

CEILING FEET	VISIBILITY, STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥1	≥1/2	≥1/4	≥1/8	≥1/16	≥1/32	≥1/64	≥1/128	≥1/256	≥1/512
NO CEILING	3.3	11.1	12.0	16.0	16.5	17.0	18.8	20.3	20.5	20.8	20.9	21.3	21.4	21.5	22.7	23.3
≥ 20000	8.4	11.3	12.2	16.5	17.3	17.8	19.9	21.4	21.8	22.0	22.2	22.7	22.8	23.4	23.7	24.2
≥ 18000	8.4	11.3	12.2	16.8	17.5	18.0	20.2	21.7	22.0	22.3	22.4	22.9	23.0	23.7	23.9	25.2
≥ 16000	8.4	11.3	12.2	16.8	17.5	18.0	20.2	21.7	22.0	22.3	22.4	22.9	23.0	23.7	23.9	25.2
≥ 14000	8.4	11.3	12.2	16.8	17.5	18.0	20.2	21.7	22.0	22.3	22.4	22.9	23.0	23.7	23.9	25.2
≥ 12000	8.4	11.3	12.2	17.0	18.0	18.5	20.7	22.2	22.5	22.8	22.9	23.4	23.6	24.2	24.4	25.7
≥ 10000	9.9	12.1	13.2	18.5	19.5	20.0	22.2	23.7	24.1	24.3	24.4	24.9	25.1	25.7	25.9	27.2
≥ 9000	9.9	12.2	13.4	18.8	19.8	20.3	22.7	24.2	24.6	24.8	24.9	25.4	25.6	26.2	26.4	27.7
≥ 8000	9.9	13.2	14.4	20.3	21.3	21.8	24.2	25.7	26.1	26.4	26.6	27.1	27.2	27.8	28.1	29.3
≥ 7000	10.5	13.9	15.0	21.4	22.5	23.0	25.6	27.1	27.5	27.8	28.0	28.5	28.6	29.2	29.5	30.7
≥ 6000	11.5	15.7	16.2	23.2	24.4	24.9	27.7	29.7	30.1	30.6	30.7	31.2	31.4	32.0	32.2	33.5
≥ 5000	11.5	15.7	16.2	23.2	24.4	24.9	27.7	29.7	30.1	30.6	30.7	31.2	31.4	32.0	32.2	33.5
≥ 4500	12.2	15.7	17.4	25.9	27.2	27.7	31.0	33.2	33.6	34.3	34.4	34.9	35.0	35.6	35.9	37.2
≥ 4000	13.1	17.3	19.0	28.6	30.0	30.5	34.5	36.8	37.2	37.8	37.9	38.4	38.5	39.0	39.4	40.7
≥ 3500	14.1	18.5	20.3	30.4	31.7	32.2	36.3	38.5	38.9	39.7	39.8	40.3	40.4	41.1	41.3	42.6
≥ 3000	15.7	20.9	23.6	33.8	35.1	35.6	40.3	42.9	43.3	44.1	44.2	44.7	44.8	45.5	45.7	47.5
≥ 2500	17.4	22.9	26.1	37.4	38.9	39.4	44.5	47.1	47.5	48.4	48.5	49.0	49.1	49.7	50.0	51.8
≥ 2000	19.9	26.2	30.0	42.6	44.3	44.8	50.5	53.3	53.9	55.2	55.3	55.8	55.9	56.5	56.8	58.6
≥ 1800	20.3	26.6	30.4	43.7	45.6	46.2	51.9	54.8	55.4	56.8	56.9	57.4	57.6	58.2	58.4	60.2
≥ 1600	21.3	29.2	33.5	48.5	51.0	51.8	58.1	61.3	62.0	63.6	63.7	64.2	64.4	65.0	65.2	67.0
≥ 1400	22.5	30.4	35.0	52.4	55.4	56.4	64.1	68.1	68.8	70.7	70.8	71.3	71.4	72.0	72.3	74.1
≥ 1200	22.7	31.1	36.0	55.3	59.2	60.2	68.8	73.6	74.2	76.1	76.2	76.7	76.8	77.5	77.7	79.5
≥ 1000	22.9	31.1	36.7	56.3	61.1	62.3	7.4	76.6	77.3	79.5	79.6	80.1	80.5	81.1	81.4	83.2
≥ 900	22.9	31.1	36.7	56.5	61.3	62.6	71.8	77.0	77.8	80.1	80.2	80.7	81.1	82.1	82.4	84.3
≥ 800	22.9	31.1	36.7	56.8	61.6	62.8	72.8	78.6	79.6	82.0	82.1	82.6	83.0	84.0	84.3	86.1
≥ 700	23.7	31.2	36.1	57.3	62.2	63.5	73.8	80.0	81.2	83.9	84.0	84.5	84.9	85.9	86.1	88.0
≥ 600	23.4	31.7	36.6	58.3	63.2	64.9	75.7	82.1	83.5	87.5	87.9	88.9	89.3	90.3	90.6	92.4
≥ 500	23.4	31.7	36.6	58.3	63.2	64.9	75.8	82.6	84.1	88.2	88.7	90.1	90.7	91.9	92.2	94.1
≥ 400	23.4	31.7	36.6	58.3	63.2	64.9	76.1	82.9	84.4	88.8	89.3	90.7	91.6	92.9	93.6	96.1
≥ 300	23.4	31.7	36.6	58.3	63.2	64.9	76.2	83.0	84.5	88.9	89.7	91.2	92.1	94.1	95.6	99.7
≥ 200	23.4	31.7	36.6	58.3	63.2	64.9	76.2	83.0	84.5	88.9	89.7	91.2	92.1	94.1	95.6	100.0

TOTAL NUMBER OF OBSERVATIONS 794

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION NAME SPAFENWHP AAF DL

73-81

NOV

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

600-5600

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	5.4	4.4	9.7	11.9	12.5	12.8	14.0	14.7	15.1	16.0	16.4	16.4	16.9	17.5	18.7	20.1
≥ 20000	6.5	3.7	11.4	13.0	13.7	14.1	15.5	16.2	16.7	17.6	18.5	18.5	19.1	19.6	21.6	22.1
≥ 18000	6.7	8.8	11.6	13.1	13.8	14.2	15.8	16.6	17.2	18.1	18.5	18.5	19.3	19.6	21.1	22.1
≥ 16000	6.7	8.8	11.6	13.1	13.8	14.2	15.8	16.6	17.2	18.1	18.5	18.5	19.3	19.6	21.1	22.1
≥ 14000	6.7	8.8	11.6	13.1	13.8	14.2	15.8	16.6	17.5	18.4	18.7	18.7	19.2	19.9	20.4	22.4
≥ 12000	6.7	8.8	11.6	13.1	14.0	14.3	16.1	16.9	17.7	18.6	19.2	19.2	19.3	20.1	22.6	22.6
≥ 10000	7.3	9.4	11.2	14.0	14.8	15.2	17.1	17.9	18.7	19.6	20.0	20.7	20.5	21.1	21.6	23.6
≥ 9000	7.4	9.6	11.3	14.1	15.0	15.3	17.2	18.0	18.9	19.7	20.1	20.1	20.6	21.3	21.8	23.6
≥ 8000	8.7	10.9	12.7	15.5	16.7	17.1	19.2	20.0	21.0	22.0	22.4	22.4	23.3	23.9	24.4	26.4
≥ 7000	9.1	11.6	13.3	16.5	17.9	18.4	20.8	21.5	22.5	23.5	23.9	23.9	24.5	25.5	26.0	28.1
≥ 6000	9.1	11.6	13.3	16.6	18.2	19.7	21.1	21.9	23.1	24.2	24.5	24.5	25.2	26.2	26.7	28.7
≥ 5000	10.1	12.7	14.3	18.2	20.0	20.5	23.3	24.0	25.4	26.4	26.8	26.8	27.4	28.4	28.9	30.9
≥ 4500	11.4	14.2	16.6	20.6	22.4	22.9	25.8	26.7	28.1	29.4	29.8	29.8	30.4	31.7	32.2	34.2
≥ 4000	13.1	16.2	18.6	23.4	25.2	25.8	28.8	29.7	31.1	32.5	32.8	32.8	33.5	34.7	35.2	37.2
≥ 3500	13.4	17.2	19.6	25.0	26.9	27.5	30.8	31.7	33.1	34.5	34.8	34.8	35.5	36.7	37.2	39.2
≥ 3000	15.6	19.6	22.6	28.9	31.9	31.8	35.5	36.6	38.7	39.4	39.7	39.7	40.4	41.6	42.1	44.2
≥ 2500	16.7	21.5	24.8	31.9	34.2	35.2	39.0	40.4	41.8	43.3	43.6	43.8	44.4	45.7	46.2	48.2
≥ 2000	19.2	24.4	28.1	36.7	39.1	40.1	44.8	46.3	47.7	49.2	49.7	49.8	50.4	51.7	52.2	54.2
≥ 1800	19.5	24.9	28.6	38.0	40.5	41.5	46.2	47.9	49.4	50.9	51.4	51.6	52.2	53.6	54.1	56.1
≥ 1600	21.3	27.2	31.6	42.3	45.5	46.8	52.2	54.2	55.8	57.7	58.2	58.4	59.7	60.4	62.9	62.9
≥ 1400	21.8	28.3	33.5	45.9	49.8	51.1	57.0	59.5	61.3	63.8	64.3	64.4	65.2	66.5	67.7	69.1
≥ 1200	22.1	29.1	34.8	48.9	53.5	54.8	61.6	65.4	67.3	70.2	70.7	70.8	71.6	73.1	73.5	75.5
≥ 1000	22.1	29.1	34.8	49.4	54.1	55.6	63.0	66.9	68.8	71.8	72.5	72.8	73.5	75.0	75.5	77.5
≥ 900	22.4	29.4	35.3	51.1	55.7	57.2	64.9	69.3	71.3	74.5	75.2	75.7	76.6	78.0	78.5	80.5
≥ 800	22.5	29.8	35.8	51.9	57.5	59.4	68.2	73.1	75.1	78.4	79.1	79.6	80.5	82.0	82.5	84.5
≥ 700	22.5	29.8	36.0	52.3	57.9	59.7	69.1	74.0	76.4	80.3	81.1	81.6	82.6	84.2	84.7	86.7
≥ 600	22.5	29.9	36.2	52.6	58.2	60.5	70.8	76.2	78.6	83.0	83.9	84.4	85.7	87.3	87.8	89.8
≥ 500	22.5	29.9	36.2	53.0	58.6	61.0	72.1	77.7	80.1	85.7	86.9	87.4	88.8	90.6	91.1	93.1
≥ 400	22.5	29.9	36.2	53.0	58.6	61.0	72.1	77.9	80.5	86.9	88.1	88.7	90.4	92.6	93.1	95.1
≥ 300	22.5	29.9	36.2	53.0	58.6	61.0	72.1	77.9	80.5	86.9	88.3	89.2	91.2	94.1	95.2	97.9
≥ 200	22.5	29.9	36.2	53.0	58.6	61.0	72.1	77.9	80.5	86.9	88.3	89.4	91.4	94.6	96.1	99.2
≥ 100	22.5	29.9	36.2	53.0	58.6	61.0	72.1	77.9	80.5	86.9	88.3	89.4	91.4	94.6	96.1	99.2

TOTAL NUMBER OF OBSERVATIONS 795

CLIMATOLOGY BRANCH
AFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION GRAFEN, OHIO AAF 01

73-81

NOV

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1960-1961

CEILING FEET	VISIBILITY, STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005
NO CEILING	6.4	8.5	9.3	11.2	17.2	12.5	13.8	14.4	14.7	15.7	15.2	15.3	16.7	15.5	16.9	17.2
≥20000	7.3	11.0	11.1	13.4	14.4	14.2	16.2	16.8	17.0	18.2	18.3	18.4	18.3	19.3	19.7	19.9
≥18000	7.3	11.0	11.2	13.7	14.7	15.2	16.5	17.2	17.4	18.5	18.7	18.3	19.2	19.7	20.1	20.3
≥16000	7.3	11.0	11.2	13.7	14.7	15.2	16.5	17.2	17.4	18.5	18.7	18.3	19.2	19.7	20.1	20.3
≥14000	7.5	17.3	11.4	13.9	14.9	15.4	16.8	17.4	17.7	18.9	18.9	19.3	19.4	19.9	20.3	20.6
≥12000	7.5	10.4	11.5	14.7	15.0	15.5	16.9	17.5	17.8	18.9	19.2	19.2	19.5	20.1	20.4	20.7
≥10000	8.7	10.8	11.9	14.4	15.4	15.9	17.5	18.2	18.4	19.5	19.7	19.3	20.2	20.7	21.1	21.3
≥9000	8.7	11.8	11.9	14.4	15.4	15.9	17.5	18.2	18.4	19.7	19.8	19.9	20.3	21.3	21.2	21.4
≥8000	9.0	12.4	13.5	16.4	17.7	18.3	19.9	20.7	21.3	22.6	22.7	22.8	23.2	23.7	24.1	24.3
≥7000	9.4	13.0	14.3	17.8	19.3	19.9	21.6	22.3	22.9	24.2	24.3	24.4	24.8	25.4	25.8	26.2
≥6000	9.8	13.4	14.8	18.4	20.1	20.7	22.3	23.1	23.7	24.9	25.1	25.2	25.6	26.2	26.6	26.9
≥5000	11.3	14.5	16.7	20.4	22.7	23.3	24.9	25.8	26.4	27.7	27.8	27.9	28.3	28.9	29.3	29.7
≥4500	11.4	15.5	17.8	21.7	23.9	24.6	26.2	27.1	27.9	29.3	29.4	29.6	29.9	30.7	31.1	31.5
≥4000	11.7	16.7	19.3	23.7	25.9	26.6	28.3	29.6	30.5	31.8	32.3	32.1	32.5	33.2	33.6	34.0
≥3500	13.2	19.5	21.6	26.7	29.3	29.9	31.8	33.2	34.1	35.5	35.6	35.7	36.1	36.8	37.2	37.6
≥3000	15.7	22.4	25.7	32.2	35.3	36.1	38.3	39.8	41.2	42.5	42.6	42.7	43.1	43.8	44.2	44.6
≥2500	17.4	24.7	28.3	35.2	38.7	39.8	42.6	44.2	45.4	46.9	47.0	47.1	47.5	48.2	48.6	49.0
≥2000	19.2	27.4	31.5	39.8	44.0	45.1	48.4	50.5	51.9	53.4	53.5	53.6	54.0	54.8	55.1	55.5
≥1800	19.7	27.9	32.1	40.7	44.9	46.0	49.4	51.9	53.3	54.8	54.9	55.7	55.4	56.1	56.5	56.9
≥1600	21.6	29.6	34.2	44.1	49.1	50.3	54.3	57.1	58.5	60.2	60.4	60.7	61.0	61.8	62.2	62.5
≥1400	22.1	32.3	38.5	53.4	60.2	62.0	67.8	72.0	74.2	78.1	78.4	78.7	79.1	79.8	80.2	80.6
≥1200	22.1	33.0	39.6	54.1	61.2	63.0	69.7	74.3	76.4	80.7	81.1	81.3	81.7	82.5	82.8	83.2
≥1000	22.1	33.0	39.6	55.3	62.9	64.7	71.7	76.9	79.0	84.8	85.7	86.0	86.3	87.1	87.5	87.8
≥900	22.1	33.0	39.6	55.3	62.9	65.8	73.6	79.4	82.2	88.0	88.8	89.3	90.5	91.2	91.6	92.0
≥800	22.1	33.0	39.6	55.3	62.9	65.8	74.3	81.0	84.1	91.1	92.4	94.4	95.5	97.6	98.5	99.7
≥700	22.1	33.0	39.6	55.3	62.9	65.8	74.3	81.0	84.1	91.1	92.4	94.4	95.5	97.6	98.5	99.7
≥600	22.1	33.0	39.6	55.3	62.9	65.8	74.3	81.0	84.1	91.1	92.4	94.4	95.5	97.6	98.5	99.7
≥500	22.1	33.0	39.6	55.3	62.9	65.8	74.3	81.0	84.1	91.1	92.4	94.4	95.5	97.6	98.5	99.7
≥400	22.1	33.0	39.6	55.3	62.9	65.8	74.3	81.0	84.1	91.1	92.4	94.4	95.5	97.6	98.5	99.7
≥300	22.1	33.0	39.6	55.3	62.9	65.8	74.3	81.0	84.1	91.1	92.4	94.4	95.5	97.6	98.5	99.7
≥200	22.1	33.0	39.6	55.3	62.9	65.8	74.3	81.0	84.1	91.1	92.4	94.4	95.5	97.6	98.5	99.7
≥100	22.1	33.0	39.6	55.3	62.9	65.8	74.3	81.0	84.1	91.1	92.4	94.4	95.5	97.6	98.5	99.7
≥50	22.1	33.0	39.6	55.3	62.9	65.8	74.3	81.0	84.1	91.1	92.4	94.4	95.5	97.6	98.5	99.7
≥25	22.1	33.0	39.6	55.3	62.9	65.8	74.3	81.0	84.1	91.1	92.4	94.4	95.5	97.6	98.5	99.7
≥10	22.1	33.0	39.6	55.3	62.9	65.8	74.3	81.0	84.1	91.1	92.4	94.4	95.5	97.6	98.5	99.7

TOTAL NUMBER OF OBSERVATIONS 798

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
 SAFETAC
 AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION GRAFENWOHR AAF DL

73-43

NOV

PERCENTAGE FREQUENCY OF OCCURRENCE
 (FROM HOURLY OBSERVATIONS)

1200-1400

CEILING FEET	VISIBILITY STATISTICAL															
	210	20	25	24	23	22	21	20	19	18	17	16	15	14	13	12
NO CEILING	9.4	13.4	14.7	15.8	16.8	17.7	17.7	17.2	17.7	17.2	17.2	17.3	17.3	17.7	17.3	17.7
21000	11.4	15.9	16.7	18.8	19.8	20.1	20.1	20.2	20.3	20.3	20.3	20.4	20.4	20.4	20.4	20.4
218000	11.4	16.2	16.9	19.3	20.4	20.7	20.7	20.8	20.9	20.9	20.9	21.1	21.1	21.1	21.1	21.1
216000	11.4	16.2	16.9	19.3	20.4	20.7	20.7	20.8	20.9	20.9	20.9	21.1	21.1	21.1	21.1	21.1
214000	11.4	16.2	16.9	19.3	20.4	20.7	20.7	20.8	20.9	20.9	20.9	21.1	21.1	21.1	21.1	21.1
212000	11.4	16.2	16.9	19.3	20.4	20.7	20.7	20.8	20.9	20.9	20.9	21.1	21.1	21.1	21.1	21.1
210000	12.2	16.9	17.9	20.6	21.9	22.2	22.2	22.3	22.4	22.4	22.4	22.6	22.6	22.6	22.6	22.6
210000	12.4	17.2	18.2	20.9	22.3	22.6	22.6	22.7	22.8	22.8	22.8	22.9	22.9	22.9	22.9	22.9
210000	14.2	19.0	20.1	23.6	24.9	25.3	25.4	25.6	25.8	25.8	25.8	25.9	25.9	25.9	25.9	25.9
210000	15.2	20.1	21.2	25.7	27.1	27.4	27.6	27.7	27.9	28.1	28.1	28.2	28.2	28.3	28.3	28.3
210000	15.5	20.6	21.7	26.4	27.9	28.3	28.6	28.7	28.9	29.1	29.1	29.2	29.2	29.3	29.3	29.3
210000	16.3	21.6	22.7	27.9	29.8	30.2	30.5	30.6	30.8	31.0	31.0	31.1	31.1	31.2	31.2	31.2
210000	17.3	22.7	24.2	29.4	31.3	31.7	32.1	32.2	32.5	32.6	32.6	32.7	32.7	32.8	32.8	32.8
210000	18.4	24.3	25.9	32.1	34.0	34.5	34.8	35.0	35.2	35.3	35.3	35.4	35.5	35.5	35.6	35.6
210000	19.9	26.9	28.8	35.5	37.3	38.0	38.5	38.7	39.0	39.1	39.1	39.2	39.2	39.3	39.3	39.3
210000	24.2	33.5	35.8	43.9	46.1	46.9	47.6	48.0	48.2	48.4	48.4	48.5	48.5	48.6	48.6	48.6
210000	28.1	37.6	40.1	48.7	51.6	52.4	53.3	53.9	54.3	54.4	54.4	54.5	54.5	54.6	54.6	54.6
210000	29.8	40.0	43.1	53.1	56.8	57.8	58.9	59.6	60.2	60.2	60.2	60.3	60.3	60.4	60.4	60.4
210000	30.1	40.9	44.0	54.8	58.6	59.6	60.8	61.7	62.0	62.3	62.3	62.4	62.4	62.5	62.5	62.5
210000	31.3	42.5	46.2	59.6	63.8	64.8	67.2	68.3	68.7	69.2	69.2	69.3	69.3	69.4	69.4	69.4
210000	33.4	45.4	49.2	64.4	69.4	70.8	73.4	74.7	75.1	76.4	76.6	76.8	76.8	76.9	76.9	76.9
210000	34.1	46.2	50.8	67.4	73.7	75.2	79.2	81.2	81.7	83.6	83.7	84.0	84.2	84.3	84.3	84.3
210000	34.3	46.5	51.0	68.2	74.8	76.3	80.5	82.7	83.3	85.2	85.3	85.6	85.8	86.0	86.0	86.0
210000	34.5	46.6	51.1	68.8	76.3	77.8	82.2	84.7	85.3	87.3	87.3	87.5	87.7	88.0	88.1	88.1
210000	34.5	46.6	51.1	69.9	77.7	79.7	84.5	87.2	87.8	90.0	90.1	90.4	90.6	90.7	90.7	90.7
210000	34.5	46.6	51.1	70.2	77.9	79.9	85.1	88.3	89.2	91.9	92.1	92.6	92.9	93.1	93.1	93.1
210000	34.5	46.6	51.1	70.6	78.6	80.6	86.2	90.0	91.0	94.0	94.0	94.5	95.0	95.5	96.1	96.1
210000	34.5	46.6	51.1	70.6	78.6	80.6	87.2	91.0	92.1	95.9	96.4	97.0	97.5	98.2	98.2	98.2
210000	34.5	46.6	51.1	70.6	78.6	80.6	87.2	91.2	92.4	96.5	97.1	97.9	98.5	99.2	99.4	99.4
210000	34.5	46.6	51.1	70.6	78.6	80.6	87.2	91.2	92.4	96.5	97.1	97.9	98.5	99.2	99.4	99.4
210000	34.5	46.6	51.1	70.6	78.6	80.6	87.2	91.2	92.4	96.5	97.1	97.9	98.5	99.2	99.4	99.4

TOTAL NUMBER OF OBSERVATIONS 792

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 18873 GRAFENWOHR AAF, DL

73-81

NOV

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1500-1700

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
NO CEILING	11.7	15.3	15.9	17.7	18.4	18.4	19.0	19.0	19.0	19.2	19.2	19.2	19.2	19.2	19.2	19.2
≥ 20000	14.4	23.2	21.2	23.2	24.1	24.1	24.7	24.7	24.7	24.8	24.8	24.8	24.8	24.8	24.8	24.8
W 18000	14.9	20.8	21.8	23.8	24.7	24.8	25.4	25.4	25.4	25.6	25.6	25.6	25.6	25.6	25.6	25.6
W 16000	15.7	20.9	21.9	23.9	24.8	24.9	25.6	25.6	25.6	25.7	25.7	25.7	25.7	25.7	25.7	25.7
W 14000	15.2	21.3	22.4	24.4	25.3	25.4	26.1	26.1	26.1	26.2	26.2	26.2	26.2	26.2	26.2	26.2
W 12000	15.2	21.6	22.7	24.7	25.6	25.7	26.3	26.3	26.3	26.4	26.4	26.4	26.4	26.4	26.4	26.4
W 10000	15.5	22.1	23.2	25.2	26.1	26.3	27.1	27.1	27.1	27.2	27.2	27.2	27.2	27.2	27.2	27.2
W 9000	16.2	22.8	23.9	26.1	26.9	27.2	27.9	27.9	27.9	28.1	28.1	28.1	28.1	28.1	28.1	28.1
W 8000	17.3	24.2	25.8	28.4	29.3	29.8	31.2	31.2	31.7	31.3	31.3	31.3	31.3	31.3	31.3	31.3
W 7000	17.9	25.3	27.6	30.5	31.3	31.8	33.2	33.2	33.2	33.5	33.5	33.5	33.5	33.5	33.5	33.5
W 6000	18.3	25.9	28.2	31.1	32.0	32.5	34.0	34.0	34.0	34.2	34.2	34.2	34.2	34.2	34.2	34.2
W 5000	19.7	27.6	29.9	33.7	34.6	35.1	36.7	36.7	36.7	37.1	37.1	37.1	37.1	37.1	37.1	37.1
W 4500	21.8	31.8	33.2	37.2	38.2	38.7	41.4	40.5	40.5	41.0	41.0	41.0	41.0	41.0	41.0	41.0
W 4000	22.8	32.7	34.7	39.5	41.6	41.1	42.7	42.9	42.9	43.4	43.4	43.4	43.4	43.5	43.5	43.5
W 3500	25.3	34.7	37.6	42.7	44.0	44.5	46.1	46.4	46.4	46.9	46.9	46.9	46.9	47.1	47.0	47.0
W 3000	29.4	39.2	42.6	48.2	50.0	50.6	52.4	52.8	52.8	53.3	53.3	53.3	53.3	53.4	53.4	53.4
W 2500	31.1	42.4	46.2	52.1	54.1	54.8	56.6	57.1	57.3	57.8	57.8	57.8	57.8	57.9	57.9	57.9
W 2000	32.2	44.7	49.6	57.0	59.8	60.5	63.5	64.2	64.3	65.0	65.0	65.0	65.0	65.2	65.2	65.2
W 1800	32.3	45.1	50.4	58.6	61.9	62.7	65.9	66.5	66.8	67.5	67.5	67.5	67.5	67.7	67.7	67.7
W 1600	33.6	47.7	53.9	64.0	67.9	68.8	72.3	73.1	73.4	74.3	74.3	74.3	74.3	74.4	74.4	74.4
W 1400	34.2	48.7	55.1	67.3	71.8	73.1	78.1	79.7	80.2	81.2	81.2	81.2	81.2	81.5	81.5	81.5
W 1200	34.3	48.9	55.4	68.9	74.8	76.3	82.1	84.1	84.6	86.0	86.1	86.1	86.1	86.3	86.5	86.5
W 1000	34.3	48.9	55.4	69.2	75.8	77.4	83.6	85.7	86.2	87.6	87.7	87.7	87.7	88.0	88.1	88.1
W 900	34.3	48.9	55.4	69.7	76.8	78.6	85.2	87.6	88.3	89.8	90.0	90.0	90.0	90.2	90.4	90.4
W 800	34.3	48.9	55.4	70.3	77.6	79.3	86.8	89.6	90.5	92.0	92.1	92.1	92.1	92.4	92.5	92.5
W 700	34.3	48.9	55.4	70.8	78.4	80.2	88.2	91.0	92.0	93.7	94.5	94.6	94.6	95.0	95.0	95.0
W 600	34.3	48.9	55.4	70.9	78.6	80.3	88.7	91.7	92.7	94.9	95.6	95.9	96.1	96.2	96.2	96.2
W 500	34.3	48.9	55.4	70.9	78.6	80.3	89.1	92.2	93.2	96.1	96.9	97.1	97.4	97.5	97.5	97.5
W 400	34.3	48.9	55.4	70.9	78.6	80.3	89.1	92.4	93.4	96.7	97.7	98.0	98.2	98.4	98.4	98.4
W 300	34.3	48.9	55.4	70.9	78.6	80.3	89.1	92.5	93.5	97.1	98.2	98.6	99.0	99.5	99.5	99.6
W 200	34.3	48.9	55.4	70.9	78.6	80.3	89.1	92.5	93.5	97.1	98.2	98.6	99.0	99.5	99.5	99.6
W 100	34.3	48.9	55.4	70.9	78.6	80.3	89.1	92.5	93.5	97.1	98.2	98.6	99.0	99.5	99.5	99.6
W 0	34.3	48.9	55.4	70.9	78.6	80.3	89.1	92.5	93.5	97.1	98.2	98.6	99.0	99.5	99.5	99.6

TOTAL NUMBER OF OBSERVATIONS 798

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

6570 GRAFENWOHR AAF DL

73-81

NOV

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1812-2000

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.75	≥0.5	≥0.25	≥0.15	≥0.1	≥0.05	≥0.01
NO CEILING	17.3	15.5	17.0	20.4	21.4	21.6	22.8	23.8	23.8	24.2	24.3	24.3	24.4	24.6	24.7	24.9
≥ 20000	11.9	16.9	16.4	22.1	23.3	23.4	24.8	25.8	25.8	26.2	26.3	26.3	26.4	26.6	26.7	26.9
≥ 18000	11.9	17.2	16.8	22.6	23.8	23.9	25.3	26.3	26.3	26.7	26.8	26.8	26.9	27.1	27.2	27.4
≥ 16000	11.9	17.2	16.8	22.6	23.8	23.9	25.3	26.3	26.3	26.7	26.8	26.8	26.9	27.1	27.2	27.4
≥ 14000	11.9	17.2	16.8	22.6	23.8	23.9	25.3	26.3	26.3	26.7	26.8	26.8	26.9	27.1	27.2	27.4
≥ 12000	12.0	17.3	16.9	22.8	24.1	24.2	25.6	26.6	26.6	27.2	27.3	27.3	27.4	27.6	27.7	27.9
≥ 10000	12.3	17.7	19.8	24.1	25.3	25.4	26.8	27.8	27.8	28.4	28.6	28.6	28.7	28.8	28.9	29.2
≥ 9000	13.0	14.4	27.6	24.8	26.2	26.3	27.7	28.7	28.7	29.3	29.4	29.4	29.6	29.7	29.8	30.1
≥ 8000	14.3	20.4	22.8	28.2	29.7	29.8	31.2	32.2	32.2	33.1	33.2	33.2	33.3	33.5	33.6	33.8
≥ 7000	14.7	21.1	23.4	28.9	30.6	30.7	32.3	33.3	33.3	34.2	34.3	34.3	34.5	34.6	34.8	35.1
≥ 6000	14.7	21.6	23.9	29.4	31.2	31.5	33.1	34.2	34.2	35.1	35.2	35.2	35.3	35.5	35.7	36.0
≥ 5000	16.2	23.4	25.9	31.5	33.2	33.5	35.3	36.5	36.5	37.5	37.6	37.6	37.8	38.7	39.2	38.5
≥ 4500	17.5	25.7	28.6	35.0	36.7	37.0	38.8	40.0	40.0	41.0	41.1	41.1	41.4	41.5	41.7	42.0
≥ 4000	18.2	26.3	29.8	36.5	38.2	38.5	40.7	42.4	42.4	43.5	43.6	43.9	44.1	44.2	44.5	44.7
≥ 3500	19.5	28.6	32.1	39.1	41.1	41.4	43.7	45.4	45.4	46.6	46.7	47.0	47.2	47.4	47.6	47.9
≥ 3000	22.8	32.3	36.2	44.0	46.0	46.4	49.5	51.4	51.5	52.8	52.9	53.1	53.5	53.6	53.9	54.1
≥ 2500	23.6	33.5	39.3	46.2	49.0	49.4	53.1	55.5	55.6	56.9	57.0	57.3	57.6	57.8	58.0	58.3
≥ 2000	24.3	35.5	40.9	50.8	54.3	54.8	59.8	62.4	62.5	64.3	64.4	64.7	65.0	65.2	65.4	65.7
≥ 1800	25.1	36.1	41.5	52.4	56.1	56.6	61.8	64.4	64.5	66.3	66.4	66.7	67.0	67.2	67.4	67.7
≥ 1500	26.1	38.2	44.1	56.4	60.9	61.5	68.3	71.7	71.9	73.7	73.8	74.1	74.4	74.6	74.8	75.1
≥ 1200	26.7	39.0	44.9	59.0	64.4	65.0	72.8	76.3	76.6	78.4	78.6	78.8	79.2	79.3	79.6	79.8
≥ 1000	26.8	39.2	45.6	60.9	67.0	67.7	75.8	79.6	79.8	82.2	82.3	82.6	83.0	83.1	83.3	83.6
≥ 900	27.1	39.5	45.9	61.3	67.9	68.8	77.2	81.2	81.5	84.0	84.1	84.3	84.7	84.8	85.1	85.6
≥ 800	27.1	39.5	45.9	61.9	68.5	69.7	78.2	82.2	82.5	85.0	85.1	85.5	85.8	86.0	86.2	86.7
≥ 700	27.1	39.5	45.9	62.4	69.4	70.7	79.7	84.0	84.7	87.2	87.3	87.7	88.1	88.2	88.5	89.0
≥ 600	27.1	39.5	45.9	62.4	69.9	71.4	80.7	85.3	86.1	88.6	89.0	89.3	89.7	89.8	90.1	90.6
≥ 500	27.1	39.5	45.9	62.8	70.7	72.3	82.0	88.0	88.7	91.7	92.4	93.7	93.4	93.6	93.9	94.4
≥ 400	27.1	39.5	45.9	62.8	70.8	72.4	82.5	88.8	89.6	92.6	93.7	94.9	95.5	95.9	96.1	96.6
≥ 300	27.1	39.5	45.9	62.8	70.9	72.6	82.6	89.2	90.0	93.0	94.1	95.4	96.0	96.5	96.7	97.2
≥ 200	27.1	39.5	45.9	62.8	70.9	72.6	82.6	89.2	90.0	93.2	94.4	95.7	96.5	97.7	98.0	98.5
≥ 100	27.1	39.5	45.9	62.8	70.9	72.6	82.6	89.2	90.0	93.2	94.4	95.7	96.5	98.0	98.2	99.6
≥ 50	27.1	39.5	45.9	62.8	70.9	72.6	82.6	89.2	90.0	93.2	94.4	95.7	96.5	98.0	98.6	100.0

TOTAL NUMBER OF OBSERVATIONS 798

USAF ETAC FORM 64 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1977

GRAFENWOHR AAF DL

73-81

NOV

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1100-2100

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005
NO CEILING	11.9	14.3	16.4	19.8	20.2	20.2	22.9	25.1	25.2	25.5	26.3	26.3	26.5	27.4	27.6	28.2
≥ 20000	11.2	14.7	17.1	21.1	21.6	21.6	24.5	26.9	27.0	27.6	28.1	28.1	28.2	29.1	29.4	30.0
≥ 18000	11.2	14.7	17.2	21.3	21.8	21.8	24.7	27.1	27.2	27.9	28.4	28.4	28.5	29.4	29.6	30.2
≥ 16000	11.2	14.7	17.2	21.3	21.8	21.8	24.7	27.1	27.2	27.9	28.4	28.4	28.5	29.4	29.6	30.2
≥ 14000	11.2	14.7	17.2	21.3	21.8	21.8	24.7	27.1	27.2	27.9	28.4	28.4	28.5	29.4	29.6	30.2
≥ 12000	11.2	14.7	17.2	21.3	21.8	21.8	24.7	27.1	27.2	27.9	28.4	28.4	28.5	29.4	29.6	30.2
≥ 10000	11.3	14.8	17.6	21.8	22.5	22.5	25.3	28.0	28.1	28.7	29.2	29.7	29.4	30.2	30.6	31.2
≥ 9000	11.4	14.9	17.7	22.0	22.6	22.6	25.5	28.1	28.2	28.9	29.4	29.4	29.5	30.4	30.7	31.4
≥ 8000	13.4	16.9	19.9	26.1	26.7	26.7	29.6	32.2	32.4	33.1	33.6	33.6	33.8	34.6	35.0	35.6
≥ 7000	14.2	17.9	21.0	27.2	28.2	28.2	31.2	33.9	34.0	34.8	35.3	35.3	35.4	36.3	36.6	37.3
≥ 6000	14.2	17.9	21.0	27.2	28.2	28.2	31.2	33.9	34.0	34.8	35.3	35.3	35.4	36.3	36.6	37.3
≥ 5000	16.3	20.6	23.6	30.5	31.5	31.5	34.8	37.4	37.5	38.3	38.8	38.9	39.0	39.9	40.3	40.9
≥ 4500	17.6	22.2	26.0	33.4	34.4	34.4	37.8	40.5	40.8	41.7	42.2	42.4	42.5	43.4	43.8	44.4
≥ 4000	18.2	22.8	27.1	34.9	35.9	35.9	39.5	42.5	42.8	43.8	44.3	44.5	44.7	45.7	46.0	46.7
≥ 3500	19.1	24.2	28.6	37.0	38.5	38.5	42.4	45.5	45.9	47.2	47.7	47.9	48.1	49.2	49.6	50.3
≥ 3000	21.1	26.3	31.2	40.2	41.9	41.9	46.7	49.8	50.3	51.9	52.4	52.8	52.9	54.1	54.5	55.2
≥ 2500	22.7	28.9	34.0	44.0	45.9	45.9	51.1	54.2	54.7	56.3	56.8	57.2	57.3	58.5	58.8	59.6
≥ 2000	24.1	30.9	36.3	47.6	50.2	50.2	55.6	58.7	59.2	61.2	61.7	62.1	62.2	63.4	63.7	64.9
≥ 1800	24.7	31.6	37.1	49.2	52.1	52.1	58.0	61.1	61.6	63.6	64.1	64.5	64.6	65.7	66.1	67.3
≥ 1500	25.3	33.4	38.9	52.9	56.6	57.0	64.1	67.8	68.3	70.3	70.8	71.1	71.4	72.5	72.9	74.0
≥ 1200	26.1	33.8	39.8	55.5	59.7	60.1	68.0	72.0	72.6	74.8	75.3	75.7	75.9	77.2	77.5	78.7
≥ 1000	26.1	33.8	40.0	57.3	62.1	62.6	70.5	74.7	75.3	78.4	78.9	79.3	79.5	80.8	81.2	82.3
≥ 900	26.2	33.9	40.3	57.8	63.1	63.6	71.5	75.9	76.5	79.8	80.3	80.7	81.2	82.4	82.9	84.1
≥ 800	26.3	34.1	40.5	58.2	63.6	64.1	72.0	76.5	77.2	80.4	80.9	81.3	81.8	83.1	83.6	84.7
≥ 700	26.3	34.1	40.5	59.0	64.5	65.0	73.8	78.5	79.2	82.8	83.3	83.7	84.3	85.6	86.1	87.2
≥ 600	26.5	34.3	40.7	59.3	65.5	66.1	75.2	80.2	80.8	85.1	85.7	86.1	86.7	88.0	88.5	89.6
≥ 500	26.5	34.3	41.1	59.7	65.9	66.6	76.3	81.8	82.6	87.2	87.8	88.5	89.1	90.3	91.0	92.1
≥ 400	26.6	34.4	41.2	59.8	66.0	66.9	76.8	82.6	83.3	89.1	90.1	91.2	91.8	93.1	93.7	94.9
≥ 300	26.6	34.4	41.2	59.8	66.1	67.1	77.0	83.6	84.4	90.6	91.6	92.9	93.6	94.9	95.5	96.6
≥ 200	26.6	34.4	41.2	59.8	66.1	67.1	77.0	83.6	84.6	91.2	92.2	93.5	94.2	95.6	96.6	97.7
≥ 100	26.6	34.4	41.2	59.8	66.1	67.1	77.0	83.6	84.6	91.5	92.5	93.7	94.5	96.1	97.2	99.1
≥ 50	26.6	34.4	41.2	59.8	66.1	67.1	77.0	83.6	84.6	91.6	92.6	93.9	94.6	96.6	97.7	100.0

TOTAL NUMBER OF OBSERVATIONS 797

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AF WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1 6877
STATION

GRAFENWOHR AAF DL
STATION NAME

73-81
YEARS

NOV
MONTH

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

ALL
PERIOD

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005
NO CEILING	12.4	13.5	16.4	17.1	17.3	18.7	19.7	19.9	20.4	20.5	21.5	21.8	21.3	21.5	22.3	
≥20000	10.2	13.9	15.2	18.5	19.3	19.5	21.0	22.1	22.3	22.8	23.0	23.1	23.3	23.8	24.1	24.8
≥18000	10.2	14.0	15.4	18.8	19.6	19.9	21.5	22.5	22.7	23.3	23.4	23.5	23.7	24.2	24.5	25.2
≥16000	10.3	14.0	15.4	18.8	19.7	19.9	21.5	22.6	22.7	23.3	23.4	23.5	23.7	24.3	24.5	25.3
≥14000	10.3	14.1	15.5	18.9	19.8	20.0	21.6	22.7	22.9	23.4	23.6	23.7	23.8	24.4	24.6	25.4
≥12000	10.4	14.2	15.6	19.0	20.0	20.2	21.8	22.9	23.1	23.7	23.8	23.9	24.1	24.6	24.9	25.6
≥10000	10.7	14.7	16.3	19.9	20.9	21.1	22.8	23.9	24.1	24.7	24.8	24.9	25.1	25.7	25.9	26.7
≥9000	11.1	14.9	16.5	20.2	21.2	21.4	23.1	24.3	24.5	25.1	25.2	25.3	25.5	26.0	26.3	27.0
≥8000	12.2	16.4	18.1	22.5	23.6	24.0	25.8	27.0	27.3	27.9	28.1	28.2	28.4	29.0	29.3	30.0
≥7000	12.3	17.2	19.1	23.9	25.1	25.5	27.4	28.6	28.9	29.6	29.7	29.8	30.0	30.7	31.1	31.7
≥6000	12.9	17.4	19.3	24.2	25.6	25.9	27.9	29.1	29.4	30.1	30.2	30.4	30.6	31.2	31.5	32.3
≥5000	14.1	19.0	21.1	26.4	27.9	28.3	30.4	31.7	32.1	32.8	32.9	33.1	33.3	33.9	34.2	35.0
≥4500	15.3	20.6	23.1	29.0	30.5	30.9	33.2	34.6	35.0	35.9	36.1	36.2	36.4	37.1	37.4	38.2
≥4000	16.3	21.9	24.6	31.2	32.8	33.2	35.8	37.4	37.8	38.7	38.9	39.0	39.3	40.0	40.3	41.1
≥3500	17.6	23.7	26.6	33.7	35.5	35.9	38.6	40.3	40.7	41.7	41.9	42.0	42.3	43.0	43.3	44.1
≥3000	20.3	27.2	30.6	38.4	40.5	41.0	44.1	46.0	46.5	47.6	47.8	48.0	48.2	49.0	49.3	50.1
≥2500	21.9	29.6	33.3	41.9	44.3	44.9	48.3	50.4	50.9	52.0	52.2	52.4	52.7	53.4	53.8	54.6
≥2000	23.5	31.1	36.4	46.3	49.2	49.8	53.9	56.1	56.7	58.1	58.3	58.5	58.7	59.5	59.9	60.7
≥1800	24.1	32.6	37.0	47.7	50.8	51.5	55.7	58.0	58.7	60.1	60.3	60.5	60.7	61.5	61.8	62.7
≥1500	25.3	34.7	39.6	52.1	55.8	56.6	61.7	64.5	65.2	66.7	66.9	67.1	67.4	68.2	68.5	69.4
≥1200	26.1	35.9	41.2	55.6	60.0	61.0	66.8	70.1	71.0	72.9	73.2	73.4	73.7	74.5	74.9	75.7
≥1000	26.3	36.5	42.2	58.2	63.4	64.5	71.1	75.0	75.9	78.4	78.6	78.9	79.2	80.1	80.4	81.3
≥900	26.4	36.6	42.4	58.7	64.4	65.6	72.5	76.6	77.5	80.1	80.4	80.7	81.0	81.9	82.2	83.2
≥800	26.5	36.7	42.5	59.5	65.5	66.7	73.9	78.2	79.2	81.8	82.1	82.4	82.9	83.7	84.1	85.0
≥700	26.6	36.8	42.6	60.1	66.4	67.8	75.6	80.1	81.2	84.1	84.4	84.7	85.2	86.1	86.5	87.4
≥600	26.6	36.8	42.6	60.5	67.0	68.5	76.8	81.6	82.9	86.3	86.8	87.1	87.6	88.5	88.9	89.8
≥500	26.6	36.9	42.8	60.9	67.6	69.2	78.0	83.4	84.8	88.5	89.0	89.6	90.1	91.2	91.5	92.5
≥400	26.7	36.9	42.8	61.1	67.8	69.5	78.9	84.5	86.0	90.6	91.4	92.2	92.8	93.9	94.3	95.2
≥300	26.7	37.0	42.9	61.1	67.8	69.6	78.9	84.9	86.5	91.4	92.3	93.3	94.0	95.2	95.7	96.7
≥200	26.7	37.0	42.9	61.1	67.8	69.6	79.0	84.9	86.6	91.8	92.7	93.8	94.7	96.3	97.0	98.4
≥100	26.7	37.0	42.9	61.1	67.8	69.6	79.0	85.0	86.6	91.9	92.8	94.0	94.9	96.7	97.6	99.5
≥50	26.7	37.0	42.9	61.1	67.8	69.6	79.0	85.0	86.6	91.9	92.8	94.0	94.9	96.8	97.8	100.0

TOTAL NUMBER OF OBSERVATIONS 6374

USAF ETAC 1 NOV 64 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 6877 GRAFENWHR AAF DL

73-81

DEC

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

200-2400

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	7.4	9.7	12.8	15.9	17.5	18.5	18.9	19.7	19.7	19.9	19.9	20.0	20.7	20.4	20.4	20.6
≥ 20000	8.1	10.6	12.1	17.2	18.7	19.7	20.1	21.0	21.0	21.3	21.3	21.4	21.4	21.8	21.8	22.2
≥ 18000	8.1	10.6	12.1	17.2	18.7	19.7	20.1	21.0	21.0	21.4	21.4	21.5	21.5	22.0	22.0	22.5
≥ 16000	8.1	10.6	12.1	17.2	18.7	19.7	20.1	21.0	21.0	21.4	21.4	21.5	21.5	22.0	22.0	22.5
≥ 14000	8.1	10.6	12.1	17.2	18.7	19.7	20.1	21.0	21.0	21.4	21.4	21.5	21.5	22.0	22.0	22.5
≥ 12000	8.1	10.6	12.1	17.2	18.7	19.7	20.1	21.0	21.0	21.4	21.4	21.5	21.5	22.0	22.0	22.5
≥ 10000	9.3	12.0	13.4	18.6	20.1	21.3	21.7	22.5	22.5	22.9	22.9	23.1	23.1	23.5	23.5	24.1
≥ 9000	9.4	12.2	13.7	18.9	20.6	21.7	22.1	22.9	22.9	23.4	23.4	23.5	23.5	23.9	23.9	24.5
≥ 8000	9.7	12.9	14.4	19.6	21.5	22.8	23.2	24.3	24.3	25.0	25.0	25.2	25.2	25.6	25.6	26.2
≥ 7000	11.1	13.6	15.1	20.6	22.9	24.2	24.8	25.9	25.9	26.6	26.6	26.7	26.7	27.1	27.1	27.7
≥ 6000	11.9	14.4	16.1	21.5	23.9	25.2	25.7	26.9	26.9	27.6	27.6	27.7	27.7	28.1	28.1	28.7
≥ 5000	12.4	16.2	18.5	24.6	27.0	28.3	28.8	30.1	30.1	30.8	30.8	30.9	30.9	31.3	31.3	31.9
≥ 4500	13.6	17.9	20.3	27.0	29.7	30.9	31.6	32.9	32.9	33.6	33.6	33.7	33.7	34.1	34.1	34.7
≥ 4000	14.5	18.9	21.3	28.1	30.8	32.0	32.7	34.0	34.0	34.7	34.7	34.8	34.8	35.2	35.2	35.8
≥ 3500	16.2	20.8	23.4	30.8	33.8	35.1	36.2	37.5	37.5	38.2	38.2	38.3	38.3	38.7	38.7	39.3
≥ 3000	18.3	23.5	26.1	35.2	38.3	39.6	40.7	42.2	42.2	42.9	42.9	43.1	43.1	43.5	43.5	44.1
≥ 2500	20.6	25.9	28.4	39.3	42.8	44.1	45.3	47.0	47.0	47.8	47.8	48.0	48.0	48.4	48.4	49.0
≥ 2000	23.6	29.8	32.4	45.3	49.4	50.6	52.3	54.3	54.3	55.1	55.1	55.5	55.5	55.9	55.9	56.5
≥ 1800	24.1	30.3	33.0	46.3	50.5	51.7	53.4	55.4	55.4	56.2	56.2	56.6	56.6	57.1	57.1	57.6
≥ 1500	25.5	32.2	35.1	49.5	54.8	56.2	58.6	60.6	60.6	61.5	61.5	61.8	61.8	62.2	62.2	62.7
≥ 1200	26.3	33.1	36.9	53.8	60.1	61.8	64.3	67.1	67.1	68.3	68.3	69.0	69.0	69.4	69.4	70.1
≥ 1000	26.9	34.3	38.2	56.1	63.5	65.3	68.5	71.7	71.7	73.3	73.3	74.1	74.1	74.5	74.5	75.2
≥ 900	26.9	34.3	38.6	57.1	64.5	66.3	69.8	73.6	73.6	75.1	75.1	75.9	75.9	76.4	76.4	77.1
≥ 800	26.9	34.3	38.6	57.9	65.9	67.8	71.3	75.4	75.4	76.9	76.9	77.3	77.3	78.0	78.0	78.7
≥ 700	27.4	35.7	40.0	61.1	69.1	71.2	75.1	79.4	79.4	81.8	82.2	82.9	82.9	83.9	83.9	84.6
≥ 600	27.4	35.7	40.0	62.1	70.8	72.9	77.3	82.1	82.1	84.9	85.6	86.3	86.3	87.3	87.3	88.2
≥ 500	27.4	35.7	40.0	62.1	70.8	72.9	78.0	82.9	83.5	86.6	87.3	88.0	88.4	89.4	89.4	90.1
≥ 400	27.4	35.7	40.0	62.7	71.6	73.8	79.3	85.0	85.7	89.0	89.7	90.3	90.9	91.9	91.9	92.6
≥ 300	27.4	35.7	40.0	62.7	71.6	73.8	80.3	86.7	87.4	91.2	91.9	92.6	93.1	94.1	94.3	95.0
≥ 200	27.4	35.7	40.0	62.7	71.7	74.0	80.6	87.0	88.0	92.0	92.9	93.7	94.7	96.1	96.5	97.2
≥ 100	27.4	35.7	40.0	62.7	71.7	74.0	80.6	87.0	88.1	92.2	93.1	94.5	95.8	97.5	98.3	99.9
≥ 0	27.4	35.7	40.0	62.7	71.7	74.0	80.6	87.0	88.1	92.2	93.1	94.5	95.8	97.5	98.3	99.9

TOTAL NUMBER OF OBSERVATIONS 715

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 73-81
STATION NAME GRAFENWOHR AAF DL

73-81

DEC

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

300-500

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1.2	≥1	≥0.8	≥0.6	≥0.5	≥0.4	≥0.3	≥0.2
NO. OF OBS.	7.7	9.3	10.3	15.1	16.8	16.9	17.7	18.3	18.4	18.4	18.4	18.4	18.4	18.4	18.4	20.1
≥ 2000	7.9	9.5	10.6	15.6	17.3	17.5	18.3	18.8	18.9	19.0	19.0	19.0	19.0	19.0	19.0	20.9
≥ 1800	8.1	9.7	10.7	15.7	17.5	17.6	18.4	18.9	19.0	19.4	19.4	19.4	19.4	19.4	19.7	21.4
≥ 1600	8.1	9.7	10.7	15.7	17.5	17.6	18.4	18.9	19.0	19.4	19.4	19.4	19.4	19.4	19.7	21.4
≥ 1400	8.1	9.7	10.7	15.7	17.5	17.6	18.4	18.9	19.0	19.4	19.4	19.4	19.4	19.4	19.7	21.4
≥ 1200	8.1	9.7	10.7	15.7	17.5	17.6	18.4	18.9	19.0	19.4	19.4	19.4	19.4	19.4	19.7	21.4
≥ 1000	8.7	10.3	11.4	16.5	18.3	18.4	19.2	19.8	20.0	20.4	20.4	20.4	20.4	20.6	21.6	22.4
≥ 900	8.9	10.6	11.6	16.9	18.7	18.8	19.6	20.2	20.4	20.8	20.8	20.8	20.8	21.0	22.0	22.8
≥ 800	9.3	11.1	12.2	17.7	19.7	20.0	20.8	21.4	21.6	22.1	22.1	22.1	22.1	22.4	23.3	24.1
≥ 700	9.7	11.6	12.7	18.8	20.8	21.0	21.8	22.5	22.6	23.1	23.1	23.1	23.1	23.4	24.3	25.1
≥ 600	10.3	12.3	13.4	19.6	21.6	21.8	22.6	23.3	23.4	23.9	23.9	23.9	23.9	24.2	25.1	25.9
≥ 500	11.9	14.0	15.3	22.1	24.3	24.6	25.4	26.1	26.2	26.7	26.7	26.7	26.7	27.0	27.9	28.7
≥ 450	13.5	16.7	17.3	25.1	27.5	27.8	28.8	29.5	29.6	30.2	30.2	30.2	30.2	30.4	31.3	32.1
≥ 400	14.8	18.1	19.6	27.6	30.0	30.3	31.3	32.0	32.1	32.7	32.7	32.7	32.7	32.9	33.9	34.7
≥ 350	16.1	19.7	21.2	29.6	32.7	32.9	34.4	35.1	35.2	35.7	35.7	35.7	35.7	36.0	37.0	37.8
≥ 300	17.5	22.0	23.4	32.1	35.2	35.4	37.6	38.4	38.5	39.0	39.0	39.0	39.0	39.3	40.2	41.1
≥ 250	18.7	23.1	24.9	34.3	37.4	37.7	39.9	40.7	40.9	41.5	41.5	41.5	41.5	41.8	42.9	43.7
≥ 200	21.2	27.1	29.1	41.1	44.7	45.1	47.4	48.4	48.7	49.6	49.6	49.6	49.6	50.2	51.1	51.9
≥ 180	21.5	28.0	30.0	43.0	46.8	47.2	49.5	50.5	50.8	51.9	51.9	51.9	51.9	52.0	53.3	54.1
≥ 160	22.9	30.2	32.5	46.3	51.1	51.6	54.5	55.7	56.0	57.1	57.3	57.4	57.4	57.7	58.7	59.5
≥ 140	24.3	32.3	35.2	50.5	56.3	57.0	61.0	63.0	63.2	64.6	64.7	64.8	64.8	65.1	66.1	67.1
≥ 120	25.3	34.3	37.4	53.6	60.4	61.1	67.2	69.6	70.4	72.1	72.5	72.6	72.6	72.9	73.9	74.9
≥ 100	25.4	34.4	38.1	55.0	62.3	63.0	69.3	71.8	73.0	74.7	75.1	75.3	75.3	75.5	77.0	77.9
≥ 90	25.5	34.5	38.1	55.7	63.8	64.4	70.2	74.2	75.4	77.1	77.5	77.6	77.6	77.9	79.6	80.6
≥ 80	26.3	35.8	39.4	58.6	66.8	67.5	74.3	78.0	79.2	81.5	81.9	82.0	82.0	82.3	84.0	84.9
≥ 70	26.6	36.1	39.8	60.1	69.2	69.8	76.7	80.4	81.6	84.0	84.4	84.5	84.5	84.9	86.6	87.6
≥ 60	26.6	36.1	39.8	60.7	69.8	70.1	77.8	81.5	82.9	85.6	86.0	86.1	86.1	86.6	88.4	89.3
≥ 50	26.6	36.1	39.8	60.7	69.8	70.1	78.7	83.1	84.5	87.4	87.8	88.1	88.1	88.6	90.3	91.5
≥ 40	26.6	36.1	39.8	60.7	69.8	70.1	78.7	83.1	84.5	87.4	87.8	88.1	88.1	88.6	90.3	91.5
≥ 30	26.6	36.1	39.8	60.7	69.8	70.1	78.7	83.1	84.5	87.4	87.8	88.1	88.1	88.6	90.3	91.5
≥ 20	26.6	36.1	39.8	60.7	69.8	70.1	78.7	83.1	84.5	87.4	87.8	88.1	88.1	88.6	90.3	91.5
≥ 10	26.6	36.1	39.8	60.7	69.8	70.1	78.7	83.1	84.5	87.4	87.8	88.1	88.1	88.6	90.3	91.5
≥ 5	26.6	36.1	39.8	60.7	69.8	70.1	78.7	83.1	84.5	87.4	87.8	88.1	88.1	88.6	90.3	91.5
≥ 2	26.6	36.1	39.8	60.7	69.8	70.1	78.7	83.1	84.5	87.4	87.8	88.1	88.1	88.6	90.3	91.5

TOTAL NUMBER OF OBSERVATIONS 756

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

CENTRAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

1487° GRAFFENWOHR AAF DL

73-61

DEC

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

0430-0430

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1.5	≥1.0	≥1.0	≥1.0	≥1.0	≥1.0	≥1.0	≥1.0	≥1.0
NO. CEILING	5.3	7.8	9.9	12.9	14.3	14.6	15.5	16.2	16.2	16.2	16.2	16.2	16.2	16.3	16.7	16.9
≥ 20000	6.4	8.7	9.5	13.8	15.2	15.5	16.3	17.2	17.2	17.2	17.2	17.2	17.2	17.4	17.8	18.0
≥ 18000	6.5	8.3	9.7	14.0	15.5	15.7	16.6	17.5	17.5	17.5	17.5	17.5	17.5	17.5	18.0	18.3
≥ 16000	6.6	8.3	9.7	14.0	15.6	15.8	16.7	17.6	17.6	17.6	17.6	17.6	17.6	17.8	18.1	18.4
≥ 14000	6.6	8.3	9.7	14.0	15.6	15.8	16.7	17.6	17.6	17.6	17.6	17.6	17.6	17.8	18.1	18.4
≥ 12000	6.6	8.3	9.7	14.0	15.6	15.8	16.7	17.6	17.6	17.6	17.6	17.6	17.6	17.8	18.1	18.4
≥ 10000	7.2	9.1	10.5	14.8	16.5	16.7	17.6	18.8	18.8	18.8	18.8	18.8	18.8	18.9	19.3	19.5
≥ 9000	7.2	9.1	10.5	14.8	16.5	16.7	17.6	18.8	18.8	18.8	18.8	18.8	18.8	18.9	19.3	19.5
≥ 8000	7.8	9.8	11.2	15.7	17.6	17.9	19.3	20.6	20.7	20.7	20.7	20.7	20.7	20.8	21.2	21.5
≥ 7000	8.6	10.9	12.4	17.1	19.0	19.3	20.8	22.1	22.2	22.2	22.2	22.2	22.2	22.3	23.1	23.4
≥ 6000	9.1	11.4	12.9	17.8	19.7	19.9	21.6	22.9	23.0	23.0	23.0	23.0	23.0	23.2	23.5	23.9
≥ 5000	9.6	12.7	13.5	19.2	21.2	21.5	23.1	24.5	24.6	24.6	24.6	24.6	24.6	24.9	25.2	25.5
≥ 4500	11.2	12.6	14.2	21.3	23.8	24.1	25.9	27.5	27.6	27.6	27.6	27.6	27.6	27.8	28.1	28.5
≥ 4000	11.2	14.2	15.7	23.0	25.5	25.9	27.7	29.2	29.4	29.4	29.4	29.4	29.4	29.5	30.0	30.4
≥ 3500	12.1	15.2	17.7	25.0	28.1	28.5	30.7	32.3	32.4	32.4	32.4	32.4	32.4	32.7	33.0	33.6
≥ 3000	14.2	17.2	19.4	27.7	30.9	31.3	34.7	36.4	36.5	36.5	36.5	36.5	36.5	36.9	37.2	37.5
≥ 2500	15.5	19.0	21.2	30.1	33.7	34.1	37.5	39.8	40.0	40.0	40.0	40.0	40.0	40.4	40.5	40.7
≥ 2000	18.1	22.5	25.2	36.3	40.4	41.1	44.6	46.9	47.0	47.0	47.0	47.0	47.0	47.9	48.0	48.3
≥ 1800	18.8	23.9	26.8	38.1	42.1	42.9	46.5	48.8	48.9	48.9	48.9	48.9	48.9	49.2	49.4	49.5
≥ 1500	20.1	25.8	29.5	41.9	46.4	47.4	51.1	53.8	53.9	53.9	53.9	53.9	53.9	54.9	55.2	55.4
≥ 1200	21.3	28.4	33.2	47.3	52.4	53.4	57.9	61.4	61.8	61.8	61.8	61.8	61.8	63.5	63.7	64.0
≥ 1000	22.1	30.4	35.4	50.7	56.4	57.5	62.8	67.0	67.6	67.6	67.6	67.6	67.6	69.7	70.0	70.2
≥ 900	22.1	30.7	36.1	52.1	58.5	59.5	65.0	69.6	70.2	70.2	70.2	70.2	70.2	72.5	72.9	73.2
≥ 800	22.2	31.0	36.7	53.3	60.3	61.3	67.0	72.3	72.9	72.9	72.9	72.9	72.9	75.4	75.7	76.0
≥ 700	22.3	31.8	37.8	55.2	63.0	64.0	70.4	75.7	76.5	76.5	76.5	76.5	76.5	79.3	79.7	79.9
≥ 600	22.7	32.2	38.2	56.3	64.8	65.8	72.2	78.0	78.8	78.8	78.8	78.8	78.8	81.9	82.4	82.6
≥ 500	22.7	32.2	38.2	57.2	65.8	66.8	73.7	80.1	81.2	81.2	81.2	81.2	81.2	84.8	85.3	85.6
≥ 400	22.7	32.2	38.2	57.2	66.5	67.7	75.4	82.4	83.7	83.7	83.7	83.7	83.7	88.4	88.6	88.9
≥ 300	22.7	32.2	38.2	57.2	66.7	67.9	76.0	83.5	85.1	85.1	85.1	85.1	85.1	90.5	90.8	91.6
≥ 200	22.7	32.2	38.2	57.2	66.7	67.9	76.2	84.0	85.6	85.6	85.6	85.6	85.6	91.7	92.3	93.1
≥ 100	22.7	32.2	38.2	57.2	66.7	67.9	76.5	84.3	85.8	85.8	85.8	85.8	85.8	92.8	94.5	95.9
≥ 0	22.7	32.2	38.2	57.2	66.7	67.9	76.6	84.4	86.0	86.0	86.0	86.0	86.0	91.2	92.3	93.0

TOTAL NUMBER OF OBSERVATIONS 783

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 1 CR77 AFENWHP AAF DL

73-51

DEC

PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

985-1173

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥2	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1	≥1
NO CEILING	3.9	6.1	3.1	11.2	12.6	13.0	14.4	15.0	15.0	15.1	15.2	15.4	15.5	15.5	15.6	15.8
≥2000	4.3	6.6	9.3	13.7	15.1	15.5	16.9	17.8	17.8	17.9	18.0	18.2	18.3	18.4	18.6	18.7
≥1800	4.4	6.9	9.5	14.0	15.4	15.8	17.3	18.3	18.3	18.4	18.7	18.8	18.9	19.1	19.2	19.4
≥1600	4.6	6.9	9.5	14.0	15.4	15.8	17.3	18.3	18.3	18.4	18.7	18.8	18.9	19.1	19.2	19.4
≥1400	4.5	6.9	9.5	14.0	15.4	15.8	17.3	18.3	18.3	18.4	18.8	18.9	19.1	19.2	19.3	19.6
≥1200	4.5	6.9	9.5	14.4	15.8	16.1	17.7	18.7	18.7	18.8	19.2	19.3	19.4	19.6	19.7	19.9
≥1000	4.7	7.4	17.3	15.2	16.8	17.2	18.8	19.9	19.9	20.1	20.5	20.6	20.7	20.8	21.0	21.2
≥800	5.1	7.8	10.7	15.6	17.2	17.5	19.2	20.3	20.3	20.5	20.8	21.0	21.1	21.2	21.7	21.6
≥600	6.4	9.8	12.8	19.1	20.7	21.2	23.3	24.8	24.9	25.7	25.4	25.5	25.7	25.9	26.3	26.6
≥400	8.1	11.4	14.5	20.8	22.7	23.4	25.4	27.1	27.2	27.3	27.7	27.8	28.0	28.2	28.6	28.8
≥200	9.5	12.8	16.7	22.9	24.8	25.4	27.4	29.2	29.4	29.5	29.9	30.0	30.1	30.4	30.7	31.0
≥100	9.8	13.2	16.4	23.8	26.0	26.7	28.8	30.9	31.0	31.1	31.5	31.6	31.8	32.0	32.4	32.7
≥50	10.2	13.6	16.9	25.0	27.3	28.0	30.2	32.3	32.4	32.5	32.9	33.0	33.2	33.4	33.8	34.1
≥25	11.3	15.1	18.8	27.8	30.2	30.9	33.5	35.8	36.0	36.1	36.5	36.6	36.7	37.0	37.4	37.6
≥15	12.7	16.8	21.3	30.5	33.0	33.7	36.8	39.1	39.3	39.4	39.8	39.9	40.0	40.3	40.7	40.9
≥10	15.0	19.9	24.3	34.9	37.6	38.2	41.8	44.5	44.6	44.7	45.1	45.2	45.4	45.6	46.0	46.3
≥5	17.9	24.0	29.8	40.7	44.0	44.9	48.8	51.7	51.8	52.1	52.5	52.6	52.9	53.1	53.5	53.7
≥3	18.0	24.3	29.2	41.2	44.5	45.4	49.3	52.5	52.6	52.9	53.2	53.4	53.6	53.9	54.3	54.5
≥2	19.7	27.3	33.0	45.9	49.6	50.8	55.1	58.4	58.6	59.3	59.8	60.0	60.2	60.7	61.1	61.4
≥1	20.5	28.3	34.9	49.3	53.7	55.0	59.8	64.4	64.5	66.2	66.7	66.8	67.2	68.0	68.4	68.6
≥0.5	20.8	29.1	36.3	52.5	57.9	59.2	64.4	69.6	69.8	72.0	72.6	72.7	73.2	74.0	74.3	74.6
≥0.25	20.9	29.2	36.5	53.4	59.2	60.5	65.8	71.2	71.4	74.2	74.7	74.8	75.3	76.1	76.5	76.7
≥0.15	21.0	29.5	36.8	55.0	61.2	62.5	68.0	73.8	74.1	77.5	78.0	78.3	78.9	79.7	80.1	80.3
≥0.1	21.1	29.6	37.0	56.2	63.5	64.8	70.5	77.0	77.4	81.3	82.1	82.3	83.0	83.7	84.1	84.4
≥0.05	21.0	29.9	37.2	57.1	64.8	66.1	72.3	79.3	79.7	84.0	84.9	85.1	85.9	86.7	87.0	87.3
≥0.025	21.1	30.0	37.6	58.1	66.3	67.6	74.3	82.2	82.7	87.4	88.4	88.7	89.5	90.7	91.1	91.6
≥0.015	21.1	30.0	37.6	58.1	66.5	67.7	74.7	82.6	83.4	88.9	90.2	90.5	91.4	92.6	93.7	93.8
≥0.01	21.1	30.0	37.6	58.1	66.5	68.0	75.3	83.7	84.5	90.6	92.0	92.2	93.3	95.2	95.8	96.3
≥0.005	21.1	30.0	37.6	58.1	66.5	68.0	75.3	83.7	84.8	91.0	92.5	92.9	94.2	97.0	98.0	99.1
≥0.0025	21.1	30.0	37.6	58.1	66.5	68.0	75.3	83.7	84.8	91.4	92.9	93.3	94.7	97.5	98.5	99.6
≥0.001	21.1	30.0	37.6	58.1	66.5	68.0	75.3	83.7	84.8	91.4	92.9	93.3	94.7	97.5	98.5	100.0

TOTAL NUMBER OF OBSERVATIONS 787

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION NO. 73-81 GRAFENWOHR AAF, DL

73-81

DEC

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1200-1400

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.15	≥0.1	≥0.05	≥0.025	≥0.01
NO. CEILING	8.3	11.1	12.5	15.5	16.5	16.9	18.1	18.1	18.1	18.3	18.3	18.3	18.3	18.3	18.3	18.3
≥ 20000	10.7	13.7	15.5	19.5	20.6	21.3	22.4	22.4	22.4	22.9	22.9	22.9	22.9	22.9	22.9	22.9
≥ 18000	10.0	14.0	15.9	20.0	21.1	21.9	23.3	23.3	23.3	23.8	23.8	23.8	23.8	23.8	23.8	23.8
≥ 16000	10.7	14.0	15.9	20.2	21.4	22.2	23.6	23.6	23.6	24.1	24.1	24.1	24.1	24.1	24.1	24.1
≥ 14000	10.7	14.0	15.9	20.4	21.5	22.3	23.7	23.7	23.7	24.2	24.2	24.2	24.2	24.2	24.2	24.2
≥ 12000	10.0	14.0	16.3	20.6	21.8	22.5	23.9	23.9	23.9	24.5	24.5	24.5	24.5	24.5	24.5	24.5
≥ 10000	10.5	15.1	17.3	22.2	23.3	24.1	25.7	25.7	25.7	26.2	26.2	26.2	26.2	26.2	26.2	26.2
≥ 9000	10.6	15.2	17.4	22.9	24.2	25.0	27.0	27.0	27.0	27.8	27.8	27.8	27.8	27.8	27.8	27.8
≥ 8000	12.7	17.9	20.5	26.4	27.8	28.6	30.7	30.9	30.9	31.6	31.6	31.6	31.6	31.6	31.6	31.6
≥ 7000	13.3	19.7	22.3	28.7	30.3	31.4	33.5	33.7	33.7	34.4	34.4	34.4	34.4	34.4	34.4	34.4
≥ 6000	14.7	19.8	22.4	28.9	30.6	31.6	33.8	33.9	33.9	34.7	34.7	34.7	34.7	34.7	34.7	34.7
≥ 5000	15.1	21.0	23.3	30.9	32.5	33.5	35.9	36.0	36.0	36.7	36.7	36.7	36.7	36.7	36.7	36.7
≥ 4500	15.0	21.8	24.7	32.0	33.7	34.7	37.1	37.3	37.3	38.0	38.0	38.0	38.0	38.0	38.0	38.0
≥ 4000	16.1	22.3	25.4	33.5	35.3	36.4	38.8	38.9	38.9	40.1	40.1	40.1	40.1	40.1	40.1	40.1
≥ 3500	18.3	25.1	28.4	36.9	38.7	39.8	42.4	42.8	42.8	43.9	43.9	43.9	43.9	43.9	43.9	43.9
≥ 3000	22.0	29.3	32.7	41.9	43.9	45.1	47.6	48.0	48.0	49.2	49.2	49.2	49.2	49.2	49.2	49.2
≥ 2500	25.4	33.0	36.5	46.0	48.5	49.7	52.4	52.8	52.8	54.3	54.3	54.3	54.3	54.3	54.3	54.3
≥ 2000	28.0	36.1	39.6	50.4	53.1	54.5	57.5	58.4	58.4	60.3	60.3	60.3	60.3	60.3	60.3	60.3
≥ 1800	29.4	36.5	40.1	51.1	53.9	55.3	58.4	59.5	59.5	61.5	61.5	61.5	61.5	61.5	61.5	61.5
≥ 1500	3.1	40.2	44.3	56.7	59.8	61.3	64.8	66.1	66.1	68.1	68.1	68.2	68.2	68.2	68.2	68.2
≥ 1200	31.6	41.2	46.1	60.6	64.5	66.3	70.3	71.8	71.8	74.0	74.0	74.3	74.5	74.5	74.5	74.5
≥ 1000	32.1	42.5	47.4	63.8	69.4	71.4	75.8	77.3	77.3	80.0	80.0	80.4	80.8	80.8	80.8	80.8
≥ 900	32.3	42.6	47.5	64.4	70.6	72.6	77.0	78.5	78.5	81.3	81.3	81.7	82.2	82.2	82.2	82.2
≥ 800	32.4	42.8	47.6	66.5	72.7	75.2	79.8	81.3	81.4	84.8	84.9	85.4	85.9	86.0	86.0	86.0
≥ 700	32.4	42.8	47.6	67.1	73.6	76.1	81.0	83.5	83.6	87.1	87.7	88.2	88.7	89.0	89.0	89.0
≥ 600	32.4	42.9	47.8	68.0	74.9	77.5	82.6	85.8	85.9	89.4	90.1	90.7	91.2	91.5	91.5	91.5
≥ 500	32.5	43.0	47.9	68.4	75.9	78.5	84.0	88.6	89.1	92.6	93.3	93.9	94.5	94.9	94.9	95.1
≥ 400	32.5	43.0	47.9	68.4	75.9	78.6	84.6	89.9	90.7	94.1	94.9	95.4	96.0	96.4	96.4	96.7
≥ 300	32.5	43.0	47.9	68.4	75.9	78.6	84.6	90.3	91.2	94.8	95.6	96.2	96.8	97.0	97.8	98.1
≥ 200	32.5	43.0	47.9	68.4	76.1	78.7	84.8	90.7	91.5	95.1	96.0	96.8	97.7	98.7	99.4	99.7
≥ 100	32.5	43.0	47.9	68.4	76.1	78.7	84.8	90.7	91.5	95.1	96.0	96.8	97.7	98.8	99.5	100.0
≥ 0	32.5	43.0	47.9	68.4	76.1	78.7	84.8	90.7	91.5	95.1	96.0	96.8	97.7	98.8	99.5	100.0

TOTAL NUMBER OF OBSERVATIONS 781

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION GRAFENWOHR AAF DL

73-81

DEC

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1500-1700

CEILING FEET	VISIBILITY, STATUTE MILES															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2.5	≥ 2	≥ 1.5	≥ 1	≥ .75	≥ .5	≥ .25	≥ .15	≥ .1	≥ .05	≥ .01
NO CEILING ≥ 2000	11.7	13.5	14.3	18.0	18.4	16.6	19.1	19.6	19.6	19.7	19.7	19.3	19.8	19.8	19.8	19.8
≥ 1800	12.1	16.5	17.3	22.7	22.6	22.8	23.5	24.2	24.2	24.4	24.4	24.5	24.5	24.5	24.5	24.6
≥ 1600	12.5	17.1	18.2	23.5	24.1	24.4	25.0	25.8	25.8	25.9	25.9	26.0	26.0	26.0	26.0	26.2
≥ 1400	12.5	17.1	18.2	23.5	24.5	24.7	25.4	26.2	26.2	26.3	26.3	26.4	26.4	26.4	26.4	26.5
≥ 1200	12.5	17.1	18.3	23.7	24.7	25.3	25.6	26.4	26.4	26.5	26.5	26.7	26.7	26.7	26.7	26.8
≥ 1000	12.5	17.4	18.7	24.1	25.1	25.5	26.4	27.2	27.2	27.3	27.3	27.4	27.4	27.4	27.4	27.6
≥ 900	13.3	18.0	19.3	24.9	25.9	26.3	27.8	28.6	28.6	28.7	28.7	28.9	28.9	28.9	28.9	29.2
≥ 800	14.4	20.5	22.3	28.6	29.9	30.3	32.2	33.1	33.1	33.4	33.4	33.5	33.5	33.5	33.5	33.6
≥ 700	15.3	22.0	23.7	30.5	32.0	32.3	34.7	35.6	35.6	35.8	35.8	36.0	36.0	36.0	36.0	36.1
≥ 600	15.6	22.3	24.0	30.9	32.3	32.7	35.1	36.0	36.0	36.2	36.2	36.3	36.3	36.3	36.3	36.5
≥ 500	16.5	23.3	25.4	32.9	34.3	34.7	37.0	37.9	37.9	38.1	38.1	38.3	38.3	38.3	38.3	38.4
≥ 450	17.3	24.2	26.4	34.1	35.6	36.0	38.7	39.6	39.6	39.8	39.8	39.9	39.9	39.9	39.9	40.1
≥ 400	18.7	26.0	28.2	36.2	37.6	38.0	40.9	41.8	41.8	42.1	42.1	42.3	42.3	42.3	42.3	42.4
≥ 350	19.6	27.8	30.2	38.4	39.9	40.3	43.3	44.2	44.2	44.6	44.6	44.7	44.7	44.7	44.7	44.8
≥ 300	22.4	30.9	33.4	41.8	43.6	43.9	47.4	48.3	48.3	48.8	48.8	49.0	49.0	49.0	49.0	49.1
≥ 250	25.1	34.4	37.2	46.0	48.5	49.0	52.8	53.7	53.7	54.6	54.6	54.9	54.9	54.9	54.9	55.0
≥ 200	29.5	38.4	41.6	51.4	54.4	54.9	59.0	60.2	60.2	61.5	61.5	61.7	61.7	61.7	61.7	61.9
≥ 180	29.3	39.3	42.9	53.9	57.1	57.6	61.9	63.0	63.0	64.3	64.3	64.6	64.6	64.6	64.6	64.7
≥ 150	31.2	42.4	46.4	58.0	61.6	62.2	66.9	68.0	68.0	69.3	69.3	69.5	69.5	69.5	69.5	69.8
≥ 120	31.3	43.9	48.8	62.5	66.8	67.9	72.9	74.5	74.6	76.3	76.3	76.4	76.4	76.4	76.4	76.8
≥ 100	32.3	44.8	50.4	64.9	70.1	71.3	76.8	78.4	78.6	80.5	80.5	81.3	81.3	81.3	81.3	81.8
≥ 90	32.5	45.0	50.6	65.9	71.6	72.8	78.4	80.0	80.4	82.9	82.9	83.6	83.6	83.6	83.6	84.3
≥ 80	32.5	45.0	50.6	67.8	74.1	75.3	80.9	82.7	83.4	86.0	86.0	86.9	86.9	86.9	86.9	87.6
≥ 70	32.5	45.4	51.0	68.4	75.0	76.3	82.1	83.9	84.5	87.2	87.2	88.1	88.1	88.1	88.1	88.9
≥ 60	32.5	45.4	51.0	69.6	76.3	77.6	83.9	87.0	87.8	90.6	90.6	91.6	91.6	91.6	91.6	92.4
≥ 50	32.5	45.4	51.0	69.7	77.1	78.4	85.2	88.8	90.1	93.0	93.0	94.1	94.1	94.1	94.1	94.8
≥ 40	32.5	45.4	51.0	69.7	77.4	78.7	85.8	89.6	90.9	93.8	93.8	95.0	95.0	95.0	95.0	96.5
≥ 30	32.5	45.4	51.0	69.7	77.4	78.7	85.8	90.3	91.6	95.0	95.0	96.1	96.1	96.1	96.1	98.3
≥ 20	32.5	45.4	51.0	69.7	77.4	78.7	85.8	90.3	91.6	95.1	95.1	96.3	96.3	96.3	96.3	99.7
≥ 10	32.5	45.4	51.0	69.7	77.4	78.7	85.8	90.3	91.6	95.1	95.1	96.3	96.3	96.3	96.3	99.9
≥ 0	32.5	45.4	51.0	69.7	77.4	78.7	85.8	90.3	91.6	95.1	95.1	96.3	96.3	96.3	96.3	100.0

TOTAL NUMBER OF OBSERVATIONS 776

USAF ETAC FORM 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 16870 GRAFENWOHR AAF DL

73-81

DEC

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

1800-2400

CEILING FEET	VISIBILITY STATUTE MILES															
	≥ 10	≥ 6	≥ 5	≥ 4	≥ 3	≥ 2.5	≥ 2	≥ 1.5	≥ 1	≥ .75	≥ .5	≥ .25	≥ .1	≥ .05	≥ .01	≥ 0
NO CEILING	7.5	11.1	12.6	16.5	16.9	17.2	18.5	19.1	19.1	19.3	19.3	19.3	19.4	19.5	19.8	20.1
≥ 20000	8.1	11.9	13.5	18.1	18.6	18.9	20.4	21.2	21.2	21.4	21.4	21.5	21.6	21.8	22.0	22.3
≥ 18000	8.4	12.5	14.7	19.7	19.7	19.9	21.5	22.3	22.3	22.4	22.4	22.5	22.7	23.1	23.3	23.6
≥ 16000	8.4	12.5	14.7	19.7	19.7	19.9	21.5	22.3	22.3	22.4	22.4	22.5	22.7	23.1	23.3	23.6
≥ 14000	8.4	12.5	14.7	19.7	19.7	19.9	21.5	22.3	22.3	22.4	22.4	22.5	22.7	23.1	23.3	23.6
≥ 12000	8.4	12.5	14.7	19.7	19.7	19.9	21.5	22.3	22.3	22.4	22.4	22.5	22.7	23.1	23.3	23.6
≥ 10000	9.2	13.2	14.8	20.2	21.1	21.4	22.9	23.7	23.7	23.9	23.9	24.0	24.1	24.5	24.8	25.0
≥ 9000	9.2	13.4	14.8	20.6	21.5	21.8	23.6	24.4	24.4	24.5	24.5	24.6	24.8	25.2	25.4	25.7
≥ 8000	10.0	15.3	17.4	23.6	24.9	25.2	27.1	28.0	28.0	28.2	28.2	28.3	28.4	28.8	29.1	29.4
≥ 7000	10.5	16.0	18.1	25.0	26.3	26.6	28.7	29.8	29.8	30.1	30.1	30.3	30.4	30.8	31.1	31.3
≥ 6000	10.7	16.3	18.3	25.6	26.9	27.1	29.2	30.3	30.3	30.7	30.7	30.8	30.9	31.3	31.6	31.8
≥ 5000	11.7	17.4	19.7	27.3	28.8	29.1	31.3	32.4	32.4	32.8	32.8	32.9	33.0	33.4	33.7	33.9
≥ 4500	13.1	19.1	21.4	29.2	31.1	31.3	34.1	35.1	35.1	35.5	35.5	35.6	35.9	36.2	36.4	36.7
≥ 4000	15.2	21.6	23.7	32.4	34.2	34.5	37.2	38.3	38.3	38.8	38.8	38.9	39.1	39.4	39.7	40.0
≥ 3500	17.2	24.8	27.3	36.2	38.1	38.4	41.2	42.2	42.2	42.7	42.7	42.9	43.0	43.4	43.6	43.9
≥ 3000	21.1	27.9	30.7	40.5	42.6	42.9	46.1	47.2	47.2	47.7	47.7	47.8	48.0	48.4	48.6	48.9
≥ 2500	22.1	30.7	33.6	44.3	46.5	46.8	50.3	52.2	52.2	52.7	52.7	52.8	52.9	53.3	53.6	53.9
≥ 2000	24.2	33.8	37.6	51.1	54.5	54.9	59.0	60.9	60.9	61.5	61.5	61.6	61.7	62.1	62.4	62.6
≥ 1800	25.2	35.0	38.9	52.9	56.6	57.0	61.2	63.2	63.2	63.7	63.7	63.8	64.0	64.4	64.6	64.9
≥ 1500	26.6	37.0	41.5	56.7	61.5	62.0	67.4	72.1	72.1	72.6	72.6	72.8	73.0	73.4	73.6	73.9
≥ 1200	27.9	38.5	43.5	59.6	65.4	66.7	72.6	75.5	75.6	76.3	76.3	76.5	76.7	77.2	77.5	77.7
≥ 1000	28.4	39.8	45.2	61.9	68.3	69.7	75.8	78.8	79.0	79.8	79.8	80.1	80.2	80.5	81.1	81.4
≥ 900	28.4	39.8	45.2	61.9	68.3	69.7	75.8	78.8	79.0	79.8	79.8	80.1	80.2	80.5	81.1	81.4
≥ 800	28.4	39.8	45.2	61.9	68.3	69.7	75.8	78.8	79.0	79.8	79.8	80.1	80.2	80.5	81.1	81.4
≥ 700	28.4	39.8	45.2	61.9	68.3	69.7	75.8	78.8	79.0	79.8	79.8	80.1	80.2	80.5	81.1	81.4
≥ 600	28.4	39.8	45.2	61.9	68.3	69.7	75.8	78.8	79.0	79.8	79.8	80.1	80.2	80.5	81.1	81.4
≥ 500	28.4	39.8	45.2	61.9	68.3	69.7	75.8	78.8	79.0	79.8	79.8	80.1	80.2	80.5	81.1	81.4
≥ 400	28.4	39.8	45.2	61.9	68.3	69.7	75.8	78.8	79.0	79.8	79.8	80.1	80.2	80.5	81.1	81.4
≥ 300	28.4	39.8	45.2	61.9	68.3	69.7	75.8	78.8	79.0	79.8	79.8	80.1	80.2	80.5	81.1	81.4
≥ 200	28.4	39.8	45.2	61.9	68.3	69.7	75.8	78.8	79.0	79.8	79.8	80.1	80.2	80.5	81.1	81.4
≥ 100	28.4	39.8	45.2	61.9	68.3	69.7	75.8	78.8	79.0	79.8	79.8	80.1	80.2	80.5	81.1	81.4
≥ 0	28.4	39.8	45.2	61.9	68.3	69.7	75.8	78.8	79.0	79.8	79.8	80.1	80.2	80.5	81.1	81.4

TOTAL NUMBER OF OBSERVATIONS 763

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION GRAFENWOHR AAF DL

73-81

PER

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

21-4-2300

CEILING FEET	VISIBILITY STATUTE MILES															
	≥ 10	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12
≥ 20000	7.5	11.4	13.6	17.1	19.6	19.7	20.7	20.8	21.0	21.3	21.3	21.3	21.5	21.8	22.0	22.2
18000	7.8	11.7	14.4	18.3	19.9	20.8	21.4	22.4	22.5	22.6	22.9	22.9	23.2	23.5	23.9	24.2
16000	8.3	12.2	15.0	19.3	20.8	21.8	22.4	23.3	23.5	23.6	23.9	23.9	24.2	24.4	24.9	25.1
14000	8.3	12.2	15.0	19.3	20.8	21.8	22.4	23.3	23.5	23.6	23.9	23.9	24.2	24.4	24.9	25.1
12000	8.3	12.2	15.0	19.3	20.8	21.8	22.4	23.3	23.5	23.6	23.9	23.9	24.2	24.4	24.9	25.1
10000	8.6	12.5	15.3	19.6	21.3	22.4	23.2	24.2	24.3	24.4	24.7	24.7	25.0	25.3	25.7	25.8
8000	8.6	12.5	15.3	19.6	21.3	22.4	23.2	24.2	24.3	24.4	24.7	24.7	25.0	25.3	25.7	25.8
6000	9.7	14.4	17.2	22.1	23.9	25.0	25.8	27.1	27.2	27.4	27.6	27.6	27.9	28.2	28.6	28.8
4000	10.4	15.4	18.2	24.0	26.0	27.1	27.9	29.2	29.3	29.4	29.7	29.9	30.1	30.4	30.8	31.1
2000	11.8	17.5	20.4	27.2	29.2	30.3	31.3	32.5	32.6	32.8	33.1	33.2	33.5	33.8	34.2	34.4
1000	12.8	19.9	21.8	29.7	31.7	33.1	34.2	35.4	35.6	35.7	36.0	36.1	36.1	36.4	36.7	37.1
500	14.1	20.7	23.6	32.1	34.3	35.7	36.8	38.1	38.2	38.3	38.6	38.9	39.2	39.4	39.9	40.1
250	15.6	22.9	26.3	35.6	37.9	39.3	40.6	41.8	41.9	42.1	42.4	42.6	42.9	43.2	43.6	43.8
100	17.1	24.9	28.5	39.0	41.4	42.8	44.7	46.1	46.3	46.5	46.8	47.1	47.4	47.6	48.1	48.3
50	20.0	28.3	32.2	44.3	46.9	48.3	51.0	52.6	52.8	53.1	53.3	53.6	53.9	54.2	54.6	54.8
25	22.9	32.8	36.8	51.7	55.0	56.4	59.7	61.5	61.7	61.9	62.2	62.5	62.8	63.1	63.5	63.8
10	23.2	33.1	37.1	52.5	55.8	57.2	60.7	62.5	62.6	62.9	63.2	63.5	63.8	64.0	64.4	64.6
5	24.3	34.6	38.8	55.1	60.3	61.8	65.8	67.8	67.9	68.6	68.9	69.2	69.4	69.7	70.1	70.3
2	25.7	36.5	41.3	59.2	65.4	66.9	71.8	74.2	74.3	75.1	75.4	75.7	75.9	76.3	76.7	76.9
1	26.3	37.5	42.2	60.8	68.3	69.9	75.0	77.5	77.6	78.5	78.8	79.2	79.4	79.7	80.1	80.3
0.5	26.3	37.5	42.2	60.8	68.3	69.9	75.0	77.5	77.6	78.5	78.8	79.2	79.4	79.7	80.1	80.3
0.25	26.4	37.6	42.9	62.8	70.7	72.2	77.9	80.8	81.0	81.9	82.2	82.9	83.5	83.8	84.2	84.4
0.1	26.5	38.5	43.8	64.7	72.8	74.4	80.1	83.1	83.2	84.4	84.7	85.3	85.4	86.0	86.3	86.7
0.05	26.5	38.5	43.8	65.4	74.0	75.7	82.1	85.3	85.6	86.8	87.2	87.8	87.9	88.5	88.8	89.2
0.025	26.5	38.5	43.8	66.1	75.1	76.8	84.3	87.6	87.9	89.6	90.1	90.8	91.4	92.1	92.4	92.8
0.01	26.5	38.6	43.9	66.9	76.1	77.8	85.3	88.6	88.9	90.7	91.3	91.9	92.5	93.3	93.6	94.0
0.005	26.5	38.6	44.0	67.2	76.5	78.2	85.7	89.3	89.9	92.1	92.6	93.3	94.0	94.9	95.1	96.0
0.0025	26.5	38.6	44.0	67.2	76.5	78.2	85.7	89.4	90.0	92.8	93.5	94.7	95.8	96.9	98.3	99.9
0.001	26.5	38.6	44.0	67.2	76.5	78.2	85.7	89.4	90.0	92.8	93.5	94.7	95.8	97.1	98.5	100.0

TOTAL NUMBER OF OBSERVATIONS 720

CLIMATOLGY BRANCH
AFETAC
AID WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION GRAFENWOHR AAF DL

73-81

DEC

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

ALL

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2.5	≥2	≥1.5	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005
NO CEILING	7.5	13.0	11.4	15.2	16.4	16.8	17.7	18.3	18.3	18.4	18.5	18.5	18.6	18.9	19.7	19.2
≥20000	8.1	11.1	12.7	17.3	18.5	19.0	19.9	20.6	20.6	21.8	20.9	20.9	21.0	21.3	21.4	21.7
≥18000	8.3	11.4	13.1	17.8	19.1	19.5	20.6	21.3	21.3	21.5	21.6	21.7	21.8	22.1	22.2	22.6
≥16000	8.3	11.4	13.1	17.9	19.2	19.7	20.7	21.4	21.4	21.6	21.7	21.8	21.9	22.2	22.3	22.7
≥14000	8.3	11.4	13.1	17.9	19.2	19.7	20.7	21.4	21.4	21.7	21.8	21.9	21.9	22.2	22.3	22.7
≥12000	8.3	11.4	13.2	18.1	19.4	19.9	20.9	21.6	21.6	21.9	21.9	22.0	22.1	22.4	22.5	22.9
≥10000	8.8	12.1	13.9	18.9	20.3	20.8	21.9	22.7	22.8	23.0	23.1	23.1	23.2	23.5	23.7	24.0
≥9000	9.1	12.3	14.2	19.3	20.7	21.3	22.5	23.3	23.4	23.6	23.7	23.8	23.9	24.2	24.3	24.7
≥8000	10.0	14.7	16.1	21.6	23.3	23.9	25.3	26.3	26.4	26.7	26.8	26.8	26.9	27.2	27.4	27.8
≥7000	10.3	15.1	17.1	22.2	25.0	25.7	27.2	28.2	28.3	28.7	28.7	28.9	29.0	29.3	29.5	29.8
≥6000	11.2	15.5	17.5	23.7	25.5	26.1	27.7	28.7	28.8	29.2	29.2	29.4	29.5	29.9	29.9	30.3
≥5000	12.3	16.8	19.1	25.9	27.8	28.4	30.0	31.1	31.1	31.5	31.6	31.7	31.8	32.1	32.3	32.7
≥4500	13.3	18.0	20.3	27.8	29.8	30.5	32.4	33.5	33.6	33.9	34.0	34.1	34.2	34.6	34.7	35.1
≥4000	14.3	19.4	21.8	29.7	31.9	32.6	34.5	35.6	35.6	36.1	36.2	36.3	36.4	36.7	36.9	37.2
≥3500	15.3	21.4	24.0	32.5	34.9	35.6	37.8	38.9	39.0	39.5	39.6	39.7	39.8	40.1	40.3	40.7
≥3000	18.1	24.7	26.9	36.1	38.6	39.3	42.0	43.2	43.3	43.8	43.9	44.0	44.1	44.5	44.6	45.0
≥2500	20.2	26.8	29.8	39.9	42.7	43.4	46.4	47.9	48.0	48.6	48.7	48.9	49.0	49.3	49.5	49.9
≥2000	23.1	31.5	33.9	45.9	49.4	50.2	53.5	55.2	55.3	56.2	56.3	56.5	56.6	57.0	57.1	57.5
≥1800	23.5	31.3	34.7	47.3	50.9	51.7	55.1	56.9	57.0	57.9	58.0	58.1	58.3	58.6	58.8	59.2
≥1500	25.1	33.7	37.7	51.2	55.6	56.6	61.5	62.5	62.6	63.7	63.9	64.1	64.2	64.6	64.8	65.2
≥1200	26.2	35.3	40.7	55.3	60.5	61.8	66.3	69.0	69.1	70.5	70.7	70.9	71.1	71.5	71.7	72.1
≥1000	26.3	36.6	41.6	58.0	64.3	65.6	70.8	73.7	74.0	75.7	76.1	76.4	76.6	77.1	77.3	77.7
≥900	26.9	36.7	41.9	58.9	65.5	66.8	72.1	75.3	75.6	77.6	78.0	78.3	78.5	79.1	79.3	79.7
≥800	26.9	36.8	42.1	60.3	67.4	68.8	74.3	77.8	78.2	80.4	80.8	81.1	81.5	82.2	82.4	82.8
≥700	27.1	37.5	42.9	62.0	69.4	70.9	76.7	80.5	81.0	83.5	84.0	84.4	84.7	85.5	85.7	86.1
≥600	27.2	37.6	43.0	63.1	71.1	72.6	78.8	83.1	83.6	86.4	87.0	87.4	87.8	88.6	88.8	89.2
≥500	27.2	37.6	43.1	63.6	71.9	73.4	80.2	85.1	85.8	88.9	89.5	90.0	90.5	91.3	91.5	92.0
≥400	27.2	37.6	43.1	63.8	72.4	74.0	81.1	86.4	87.2	90.5	91.3	91.7	92.3	93.2	93.5	94.1
≥300	27.2	37.6	43.1	63.9	72.5	74.1	81.6	87.4	88.4	92.1	92.9	93.4	94.2	95.3	95.6	96.2
≥200	27.2	37.6	43.1	63.9	72.5	74.1	81.7	87.6	88.7	92.7	93.6	94.3	95.3	96.9	97.6	98.6
≥100	27.2	37.6	43.1	63.9	72.5	74.1	81.7	87.7	88.8	92.8	93.7	94.5	95.7	97.4	98.4	99.8
≥50	27.2	37.6	43.1	63.9	72.5	74.1	81.8	87.7	88.8	92.8	93.7	94.5	95.7	97.4	98.5	100.0

TOTAL NUMBER OF OBSERVATIONS 6581

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AT WEATHER SERVICE/MAC

CEILING VERSUS VISIBILITY

STATION 16870 GRAFENWOHR AAF DL

73-81

ALL

PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)

ALL

CEILING FEET	VISIBILITY STATUTE MILES															
	≥10	≥6	≥5	≥4	≥3	≥2	≥1	≥0.5	≥0.25	≥0.1	≥0.05	≥0.025	≥0.01	≥0.005	≥0.0025	≥0.001
20000	16.3	22.8	24.8	29.0	30.3	30.5	31.8	32.5	32.6	33.2	33.3	33.5	37.6	34.0	34.2	34.5
18000	16.9	26.7	23.4	33.4	34.9	35.2	36.6	37.4	37.5	38.2	38.3	38.5	38.6	39.0	39.3	39.7
16000	16.9	26.7	29.7	34.1	35.6	35.9	37.4	38.1	38.3	38.9	39.0	39.2	39.4	39.8	40.0	40.5
14000	19.1	26.8	29.1	34.3	35.8	36.1	37.6	38.3	38.5	39.1	39.3	39.4	39.6	40.0	40.2	40.7
12000	19.3	27.3	29.6	34.8	36.4	36.7	38.2	39.0	39.1	39.7	39.9	40.0	40.2	40.6	40.9	41.3
10000	20.5	28.8	31.2	36.7	38.4	38.7	40.3	41.1	41.3	42.0	42.1	42.3	42.5	42.9	43.1	43.6
9000	20.8	29.3	31.6	37.5	39.2	39.5	41.2	42.0	42.1	42.8	43.0	43.1	43.3	43.8	44.0	44.5
8000	23.1	32.5	35.2	41.5	43.4	43.8	45.6	46.6	46.7	47.5	47.7	47.9	48.1	48.5	48.8	49.2
7000	24.1	33.7	36.6	43.3	45.3	45.7	47.6	48.6	48.8	49.6	49.8	50.0	50.2	50.6	50.9	51.4
6000	24.4	34.2	37.1	43.8	45.9	46.3	48.3	49.3	49.5	50.3	50.5	50.7	50.9	51.3	51.6	52.1
5000	25.0	36.3	39.4	46.6	48.8	49.2	51.3	52.4	52.6	53.4	53.6	53.8	54.2	54.5	54.8	55.2
4500	27.1	37.9	41.2	48.9	51.2	51.6	53.9	55.0	55.3	56.2	56.4	56.6	56.8	57.1	57.4	58.0
4000	28.8	40.3	43.6	52.0	54.4	54.9	57.3	58.5	58.8	59.8	60.0	60.2	60.4	60.9	61.2	61.7
3500	31.3	42.4	46.1	54.7	57.4	57.8	60.4	61.7	62.0	63.0	63.2	63.4	63.7	64.2	64.5	65.0
3000	32.7	45.7	49.6	59.0	61.9	62.4	65.2	66.7	67.0	68.1	68.3	68.6	68.9	69.4	69.7	70.2
2500	33.9	47.5	51.6	61.7	64.7	65.3	68.3	69.9	70.2	71.4	71.6	71.9	72.1	72.7	72.9	73.5
2000	35.2	49.5	54.0	65.1	68.5	69.1	72.4	74.1	74.5	75.8	76.0	76.3	76.6	77.1	77.4	77.9
1800	35.5	49.9	54.5	65.9	69.4	70.0	73.4	75.1	75.5	76.9	77.1	77.4	77.7	78.2	78.5	79.0
1600	36.4	51.4	56.3	68.6	72.4	73.1	77.0	79.0	79.4	80.8	81.1	81.4	81.7	82.2	82.5	83.0
1400	36.9	52.3	57.4	70.7	75.0	75.8	80.0	82.2	82.7	84.4	84.7	85.0	85.3	85.9	86.1	86.7
1200	37.1	52.8	58.1	72.1	76.8	77.6	82.3	84.7	85.3	87.2	87.5	87.8	88.1	88.7	89.0	89.5
1000	37.2	52.9	58.3	72.5	77.4	78.2	83.0	85.6	86.1	88.1	88.4	88.7	89.1	89.7	90.0	90.5
900	37.2	52.9	58.4	73.0	78.1	79.0	84.0	86.7	87.3	89.3	89.6	90.0	90.4	91.0	91.3	91.8
800	37.3	53.1	58.5	73.4	78.7	79.6	84.9	87.8	88.5	90.6	91.0	91.4	91.8	92.4	92.7	93.2
700	37.3	53.1	58.5	73.7	79.1	80.1	85.6	88.7	89.4	91.7	92.1	92.6	93.0	93.6	93.9	94.5
600	37.3	53.1	58.6	73.8	79.3	80.3	86.1	89.4	90.2	92.7	93.1	93.6	94.1	94.9	95.1	95.7
500	37.3	53.1	58.6	73.9	79.4	80.5	86.4	89.9	90.7	93.5	94.0	94.5	95.1	95.8	96.2	96.8
400	37.3	53.1	58.6	73.9	79.5	80.5	86.5	90.1	91.0	93.9	94.5	95.1	95.7	96.6	97.0	97.8
300	37.3	53.1	58.6	73.9	79.5	80.5	86.5	90.2	91.1	94.2	94.8	95.5	96.2	97.4	98.2	99.6
200	37.3	53.1	58.6	73.9	79.5	80.5	86.5	90.2	91.1	94.2	94.8	95.5	96.2	97.4	98.2	99.6
100	37.3	53.1	58.6	73.9	79.5	80.5	86.5	90.2	91.1	94.2	94.8	95.5	96.2	97.4	98.2	99.6

TOTAL NUMBER OF OBSERVATIONS 77387

USAF ETAC 0-14-5 (OL A) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

U S AIR FORCE
ENVIRONMENTAL TECHNICAL
APPLICATIONS CENTER

PART E

PSYCHROMETRIC SUMMARIES

In this section are presented various summaries of dry- and wet-bulb temperatures, dew points, and relative humidity. The order and manner of presentations follows:

1. Cumulative percentage frequency of occurrence - derived from daily observations and presented by month and annual for all years combined. These tabulations provide the cumulative percentage frequency to tenths of temperature by 5-degree Fahrenheit increments, plus mean temperature, standard deviations, and total number of observations in three separate tables as follows:

- a. Daily maximum temperatures
- b. Daily minimum temperatures
- c. Daily mean temperatures

NOTE: Beginning in January 1964, daily maximum and minimum temperatures are routinely selected from hourly observations recorded on surface observing forms or from automated data collections for all Air Force operated stations. For those stations observing less than 24 hours per day, and where maximum and minimum temperatures are required but not recorded, these are also selected from hourly data from as early as January 1949 and later. Please refer to notations on summary pages and Station History for further information on reporting practices of individual stations.

2. Extreme values - derived from daily observations with the extreme value selected for each year and month of record available. An annual (ALL MONTHS) value is selected when all months for a year have valid extremes. Means and standard deviations are computed for months and annual when four or more values are present for any column. Two tables of daily extremes are prepared:

- a. Extreme maximum temperature
- b. Extreme minimum temperature

NOTE: The following symbols are used in the extreme data blocks:

- (1) * indicates the extreme was selected from a month with one or more days missing.
- (2) # indicates the extreme was selected from a month in which hourly temperatures were available for less than 24 hours for at least one day in the month.

Values for means and standard deviations do not include measurements for incomplete months.

Continued on Reverse

3. Bivariate percentage frequency distribution and computations of dry-bulb versus wet-bulb temperature. This tabulation is derived from hourly observations and is presented by month and annual, all hours and years combined. The following information is provided:

- a. The main body of the summary consists of a bivariate percentage frequency distribution of wet-bulb depression in 17 classes spread horizontally; by 2-degree intervals of dry-bulb temperature spread vertically. Also provided for each of the dry-bulb intervals is the percentage of observations with dry-bulb and wet-bulb temperature combined; and again for dry-bulb, wet-bulb, and dew-point temperatures separately. Total observations for these four items is also provided in two lines at end of each tabulation table, which may be continued on several pages.

NOTE: A percentage frequency in this table of ".0" represents one or more occurrences amounting to less than .05 percent.

- b. Statistical data for the individual elements of relative humidity, dry-bulb, wet-bulb, and dew-point temperatures are shown in the section at the bottom left of the forms. These consist of the sum of squares ($\sum X^2$), sums of values ($\sum X$), means (\bar{X}), and standard deviations (σ_x). The number of observations used in the computation for each element is also shown.
- c. At the lower right of the form are given the mean number of hours of occurrence for six ranges of dry-bulb, wet-bulb, and dew-point temperatures, and total number of hours possible in the period represented. Mean number of hours is shown to tenths and indicates mean number of hours per year in the annual summary, or mean number of hours per month in the tabulation by month.

NOTE: Wet-bulb temperature usually was not reported prior to 1946. Relative humidity usually was not reported prior to 1949, nor subsequent to June 1958; and was computed by machine methods for observations recorded during these periods. All values of dew-point temperature and relative humidity are with respect to water, unless otherwise indicated.

4. Means and standard deviations - These tabulations are derived from hourly observations and present the mean, standard deviation, and total number of observations for the eight standard 3-hour groups, by month and annual and again at the bottom for all hours combined. Records for all years combined are presented in the following three tables; DRY-BULB TEMPERATURE, WET-BULB TEMPERATURE, and DEW-POINT TEMPERATURE.
5. Cumulative percentage frequency of occurrence of relative humidity - This summary is derived from hourly observations and presents the cumulative percentage frequency of occurrence of relative humidity by increments of 10% classes, plus the mean relative humidity and total number of observations in two tables.
- a. Table 1 is prepared by month and annual, all years combined, with month being the vertical argument.
- b. Table 2 is prepared by month by standard 3-hour groups, with the hour groups being the vertical argument and a separate page for each month. All years are also combined for this summary.

LOCAL CLIMATOLOGY BRANCH
 USAFETAC
 AIR WEATHER SERVICE/MAC
 16877 GRAFENWOHR AAF DL
 STATION STATION NAME

DAILY TEMPERATURES

62-81

YEARS

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE
 (FROM DAILY OBSERVATIONS)

MAXIMUM

TEMP (°F)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
75						1.5	1.9	1.6					.4
70					.8	4.3	10.2	5.5	.3				1.6
65				.5	3.2	14.3	22.6	17.9	3.0				5.3
60				.9	13.9	31.2	38.4	36.9	12.4	1.0			11.5
55			.8	4.8	24.1	49.3	55.6	54.7	29.5	3.9			19.0
50			3.4	14.5	41.8	66.0	73.7	73.1	50.1	13.4	.2		29.0
45		.2	9.5	26.6	61.3	82.3	88.4	91.9	72.6	28.5	1.2		39.3
40		1.1	15.4	44.6	84.4	94.8	99.2	99.0	90.8	48.7	6.7		49.6
35	.2	5.4	28.5	62.4	93.4	99.5	100.0	100.0	98.5	71.8	19.1	3.1	57.7
30	3.6	16.0	46.2	79.0	98.3	100.0			99.8	87.4	35.5	7.8	65.2
25	15.5	34.8	70.6	94.2	100.0				100.0	97.7	59.5	22.4	75.2
20	38.2	63.1	90.2	99.8						100.2	82.2	45.5	83.2
15	69.5	87.5	96.9	100.0							96.8	76.2	94.0
10	84.9	97.6	99.2								99.5	88.9	97.5
5	94.1	99.6	99.7								100.0	96.0	99.1
0	98.3	100.0	100.0									99.0	99.8
-5	99.8											99.7	100.0
-10	100.0											100.0	100.0
MEAN	32.2	37.1	45.1	53.4	63.1	69.2	71.7	71.4	64.9	54.5	42.1	33.9	53.2
S D	7.418	7.340	9.352	9.497	9.138	9.182	9.213	8.246	8.037	8.348	7.722	7.581	16.549
TOTAL OBS	581	537	589	567	589	600	619	620	599	620	597	604	7122

GLOBAL CLIMATOLOGY BRANCH

USAFETAC

AIR WEATHER SERVICE/MAC

STATION 6370 GRAFENWOHR AAF DL

STATION NAME

62-81

YEARS

DAILY TEMPERATURES

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM DAILY OBSERVATIONS)

MINIMUM

TEMP (°F)	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ANNUAL
65					.2								.2
60					.3	1.2	3.9	2.7					.7
55					2.4	14.0	24.2	22.4	5.5	.9			5.9
50			.3	.4	15.4	47.8	61.6	55.3	24.2	6.8	.8		18.2
45		.2	1.5	6.2	37.0	72.2	83.5	78.9	50.6	16.8	3.2	1.0	30.0
40	.5	.9	4.6	20.6	62.8	89.8	97.4	93.4	75.0	35.2	10.9	3.6	42.1
35	6.2	8.9	20.0	45.3	85.7	98.5	99.7	98.5	98.6	63.2	32.8	11.3	55.7
30	12.2	18.6	30.7	54.9	90.5	99.2	100.0	99.5	94.5	70.6	44.6	19.0	61.9
25	30.5	35.9	53.8	77.1	96.3	100.0		100.0	98.3	84.7	65.5	38.7	74.0
20	52.0	57.7	75.6	93.7	99.3				100.0	96.4	86.9	60.6	85.6
15	67.5	73.6	87.1	98.8	100.0					99.4	94.5	74.3	91.3
10	77.1	84.0	92.9	100.0						99.8	97.7	82.8	94.7
5	84.2	91.1	96.1							100.0	99.2	88.7	96.7
0	89.5	94.8	97.8								99.7	93.4	98.0
-5	93.8	97.0	99.2								100.0	96.9	98.9
-10	95.7	98.5	99.7									98.0	99.3
-15	99.0	99.4	100.0									99.3	99.8
-20	99.3	99.8										99.8	99.9
-25	100.0	100.0										100.0	100.0
MEAN	31.8	24.1	28.4	34.0	41.9	48.0	50.4	49.5	44.1	37.1	31.6	24.4	36.3
S.D.	11.7531	10.058	8.599	6.520	6.850	5.989	5.438	5.988	6.822	7.330	7.238	11.045	12.793
TOTAL OBS.	581	537	589	567	589	600	619	620	599	620	597	604	7122

USAFETAC FORM 0-21-5 (OL 1) PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH

USAFETAC

AF WEATHER SERVICE/MAC

16870 GRAFENWOHR AAF DL

STATION

STATION NAME

62-81

YEARS

DAILY TEMPERATURES

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM DAILY OBSERVATIONS)

MEAN

TEMP (°F)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
75							1.1	.3					.1
7					.7	3.2	10.2	7.3	.2				1.9
55					3.4	21.8	31.0	25.2	4.8				7.4
60				1.1	16.0	47.5	58.5	55.8	22.5	1.6			17.4
55			.7	5.5	36.8	75.7	85.9	85.8	51.4	10.6	.3		30.1
5		.4	6.1	21.0	68.1	90.8	99.0	98.1	80.5	30.2	4.2		42.4
45	.3	1.7	13.8	45.9	92.0	99.5	100.0	100.0	96.3	56.3	13.4	3.3	52.7
40	5.0	10.6	35.8	71.4	97.3	100.0			99.8	84.2	35.0	7.9	63.1
35	20.3	35.2	67.6	93.5	100.0				100.0	98.1	65.7	27.3	76.2
30	50.1	63.3	85.9	99.8						99.8	89.1	58.6	87.5
25	68.8	80.1	92.5	100.0						100.0	96.0	76.2	93.0
20	80.6	92.6	97.8								99.0	85.9	96.4
15	89.3	97.0	99.3								99.8	93.9	98.3
10	94.1	99.1	99.8								100.0	96.9	99.2
5	97.8	99.8	100.0									98.5	99.7
0	99.5	100.0										99.5	99.9
-5	100.0											100.0	100.0
-10													
-15													
-20													
-25													
-30													
-35													
-40													
-45													
-50													
-55													
-60													
-65													
-70													
-75													
MEAN	27.2	30.9	37.0	43.9	52.7	58.9	61.3	60.7	54.8	46.1	37.1	29.4	45.0
S.D.	9.120	7.713	7.679	6.484	6.571	6.426	6.038	5.723	5.856	6.367	6.857	8.898	13.975
TOTAL OBS.	581	537	589	567	589	600	619	620	599	620	597	604	7122

U. S. CLIMATOLOGY BRANCH
TAC
TAC SERVICE BRANCH

EXTREME VALUES

.. 70 0 1 60 941 34

FROM DAILY OBSERVATIONS.

7
STATION

STATION NAME

201

YEARS

HOLE DEGREES FAHRENHEIT

[illegible]

NOTES * (BASED ON LESS THAN FULL MONTHS)

1210 WS FORM 0-88-5 (OLI)

4 (AT LEAST ONE DAY LESS THAN 24 HRS)

AT CLIMATOLOGY BRANCH

FATHER SERVICE/PAO

EXTREME VALUES

MINIMUM TEMPERATURE

FROM DAILY OBSERVATIONS

7 STATION 7042 AAF PL 52-51
STATION NAME YEARS

WIND DIRECTION DEGREES FAHRENHEIT

MONTH YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ALL MONTHS
1	-14	-16	-7	16	30	35	41	34	28	12	10	-1	-12
2	-9	9	9	17	31	38	34	34	27	24	1	1	-3
3	1	-3	-1	25	29	30	39	34	27	24	1	1	-7
4	-4	24	22	27	32	35	39	37	32	24	15	17	-4
5	-1	10	24	24	31	30	42	37	34	28	2	1	-8
6	-1	8	17	23	23	37	42	35	32	16	27	-1	-5
7	13	8	17	24	3	39	42	39	31	22	10	-1	-19
8	17	-5	3	20	34	35	39	37	24	25	24	1	-5
9	-17	10	1	23	37	35	41	44	29	23	10	1	-17
10		10	10	19	33	30	39	37	28	14	17	1	-1
11		1	15	21	28	35	40	39	27	10	14	-5	-1
12	24	26	21	24	3	37	42	42	32	28	21	19	19
13	2	14	17	24	3	37	48	37	31	21	13	1	3
14		17	3	15	21	35	35	33	33	1	24	-9	-9
15		8	12	19	32	30	37	39	28	20	3	1	3
16		-9	19	19	26	32	35	32	32	20	17	1	-9
17		1	17	24	24	39	33	35	28	21	18	1	-9
18		12	19	25	23	39	37	32	32	20	14	1	-6
19		3	25	19	25	37	41	36	32	25	15	-9	-9
20													
21													
22													
23													
24													
25													
26													
27													
28													
29													
30													
31													
MEAN	4.2	7.1	12.9	22.9	28.7	35.4	39.1	37.1	31.5	24.6	17.5	5.4	-6.1
S. D.	12.15	10.65	9.23	3.56	3.38	3.14	3.32	3.79	3.16	3.79	7.22	11.42	3.82
TOTAL OBS.	531	537	589	567	589	600	519	620	599	627	597	604	7122

NOTES * (BASED ON LESS THAN FULL MONTHS)

1210 WS FORM 0.88-5 (OLI)

* AT LEAST ONE DAY LESS THAN 24 OBS.

PSYCHROMETRIC SUMMARY

YEARS

PAGE 1 0000-0200
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																					TOTAL		TOTAL																	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point																				
5 / 42		.1																1	1																						
4 / 47		.6																5	5	2																					
4 / 45		.8																6	6	6	3																				
4 / 43		.9																7	7	6	7																				
2 / 41	.5	2.0	.1															21	21	16	12																				
4 / 39	1.3	1.8	.1															25	25	21	21																				
3 / 37	2.6	2.1																38	38	35	32																				
2 / 35	1.9	3.3																41	41	36	30																				
3 / 33	6.9	2.9																78	78	95	67																				
32 / 31	9.4	6.0																123	123	119	113																				
20 / 29	7.8	3.7	.3															93	93	102	94																				
2 / 27	1.1	2.9	.1															104	104	100	107																				
2 / 25	5.5	1.1	.1															54	54	63	67																				
24 / 23	5.0	.5																44	44	46	65																				
2 / 21	1.3	.6																15	15	16	16																				
2 / 19	2.1	.4																20	20	20	19																				
1 / 17	2.9	.4																26	26	28	24																				
1 / 15	2.4	.1																20	20	20	27																				
1 / 13	1.3																	10	10	10	22																				
1 / 11	.8																	6	6	6	10																				
1 / 9	1.3																	10	10	10	10																				
1 / 7	.3																	2	2	2	3																				
1 / 5	1.8																	14	14	14	8																				
1 / 3	1.1																	9	9	9	8																				
1 / 1	.9																	7	7	7	7																				
1 / -1	1.3																	10	10	10	15																				
-1 / -3	.1																	1	1	1	3																				
-1 / -5	.3																	2	2	2																					
-1 / -7	.3																	2	2	2	4																				
TOTAL	65.0	30.2	.8															794	794	794	794																				
																						794		794		794															
Element (X)	Σ x ¹	Σ x	x̄	s _x	No. Obs.				Mean No. of Hours with Temperature																																
Rel. Hum.	7156893	75195	94.7	6.702	794				≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total																										
Dry Bulb	681618	22 22	27.7	9.451	794				1.8	67.0					93																										
Wet Bulb	660335	21699	27.3	9.214	794				1.8	68.8					93																										
Dew Point	621823	20939	26.4	9.370	794				2.6	72.9					93																										

PSYCHROMETRIC SUMMARY

73-81

YEARS

JAN
MONTH

PAGE 1

0600-0800
HOURS L. S. T.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																												TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point											
1 / 47		.1																1	1													
4 / 45		.2																2	2													
4 / 43	.5	.5																8	8	10	5											
2 / 41	1.2	2.6																31	31	22	23											
4 / 39	.6	1.8	.4															23	23	14	16											
3 / 37	3.0	2.0																40	40	39	27											
4 / 35	2.2	2.3	.1															38	38	37	35											
3 / 33	4.6	1.7																51	51	60	46											
32 / 31	9.4	5.0																117	117	121	101											
10 / 29	5.3	5.7																89	89	85	76											
2 / 27	12.8	2.6																125	125	132	134											
2 / 25	6.3	1.4																62	62	60	72											
2 / 23	5.7	1.2	.4															59	59	55	76											
2 / 21	1.7	.4																17	17	24	31											
20 / 19	2.0	.4																19	19	19	20											
1 / 17	1.0	.2																10	10	13	17											
1 / 15	1.7	.4																17	17	17	16											
1 / 13	2.6	.7																27	27	27	26											
1 / 11	1.1	.2																11	11	11	16											
10 / 9	2.1																	17	17	17	22											
7 / 7	1.0																	8	8	6	8											
7 / 5	.7																	6	6	6	13											
7 / 3	.7																	6	6	6	5											
7 / 1	1.0																	8	8	8	7											
7 / -1	.9	.1																8	8	7	7											
-7 / -3	.4																	3	3	4	4											
-7 / -5	.5																	4	4	4	4											
-7 / -7	.1																	1	1	1	1											
-7 / -9	.5																	4	4	4	3											
-17 / -11																					3											
-17 / -13																					1											
TOTAL	60.529.7	.9																	812	812	812											
																			812	812												

Element (X)	$\Sigma x'$	Σx	\bar{x}	s_x	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	7310383	76835	94.6	7.016	812	≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F	
Dry Bulb	669939	21933	27.0	9.776	812	2.3	70.8					93
Wet Bulb	649384	21676	26.6	9.583	812	2.3	72.5					93
Dew Point	612124	20810	25.6	9.857	812	2.6	75.1					93

PSYCHROMETRIC SUMMARY

73-81

JAN
MONTH

PAGE 1 1200-1400
HOURS U. S. T.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B. W.B.	Dry Bulb	Wet Bulb	Dew Point														
47			.1															1		1															
45		.2	.1	.2														5	5	3	2														
43		.2	1.7	.1	.2													19	19	16	3														
41		1.5	3.0	1.4	.2													49	49	24	28														
39		1.7	2.8	1.7														51	51	34	32														
37		2.3	3.4	1.0	.1													56	56	52	33														
35		2.3	6.5	2.7														94	94	72	51														
33		4.6	7.7	1.7	.1													109	109	114	61														
31		6.5	9.0	.4														129	129	175	124														
29		3.7	7.1	.1														89	89	103	113														
27		3.7	4.4	.6														65	65	47	131														
25		1.7	2.6	.1														36	36	47	44														
23		2.2	2.3	.2														39	39	36	54														
21		1.6	.7	.1														20	20	30	34														
19		1.7	.9															21	21	22	33														
17		.2	1.1															10	10	17	20														
15		.5	.4															7	7	8	7														
13		.1	.5															5	5	5	14														
11		.1	.2															3	3	3	12														
9		.5																4	4	4	9														
7																					5														
5																					2														
1		.1																1	1	1	1														
-1																																			
TOTAL	34.95	4.6	9.7	.7														813		813	913														

Element (X)	Σx'	Σx	Σ	Σ ₂	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	6476127	72143	89.7	9.571	813	≤ 0 F	≥ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Dry Bulb	85675	25842	31.8	6.597	813		49.1					93
Wet Bulb	800405	24975	30.7	6.393	813		57.					93
Dew Point	711610	23350	28.7	7.174	813	.1	69.					93

USAFETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE JUL 64

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

106870 GRAFENWOHR AAF DL
STATION STATION NAME

73-81
YEARS

JAN
MONTH

PAGE 1 1500-1700
HOURS (L.S.T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL D.B.-W.B.			TOTAL Dry Bulb Wet Bulb Dew Point		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31					
4 / 45	.5	.1	.1																														6	6	5	4	
4 / 43	.2	1.5	.1	.1																												16	16	15	3		
42 / 41	2.6	4.2	1.2	.1																												66	66	34	38		
40 / 39	1.2	2.0	1.1	.1																												36	36	35	26		
3 / 37	2.7	4.4	.6																													63	63	46	41		
3 / 35	2.1	6.0	1.1																													75	75	71	47		
3 / 33	5.7	7.9	1.1																													119	119	107	73		
2 / 31	4.5	10.2	.9																													127	127	168	96		
2 / 29	4.3	5.9	.1																													84	84	96	127		
2 / 27	4.1	5.4	.1																													73	73	71	108		
2 / 25	2.7	2.9																														46	46	51	62		
2 / 23	3.4	1.6																														41	41	47	82		
2 / 21	1.1	.6																														14	14	23	30		
2 / 19	.9	.1																														8	8	12	20		
2 / 17	1.	.6																														13	13	14	17		
1 / 15	.6	.9																														12	12	12	10		
1 / 13	.1	.1																														2	2	2	11		
1 / 11	.1																															1	1	1	6		
1 / 9	.9																															7	7	7	8		
1 / 7																																			1		
1 / 5																																			1		
TOTAL	33.7	54.4	6.5	.4																													814	814	814		

Element (X)	ΣX^2	ΣX	\bar{X}	σ_x	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	6636889	73157	89.9	8.734	814	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Dry Bulb	858607	25908	31.8	6.467	814		49.5					93
Wet Bulb	808507	25145	30.9	6.250	814		57.2					93
Dew Point	727032	23692	29.1	6.788	814		66.5					93

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1 6877 GRAFENWOHP AAF DL 73-81 JAN
STATION STATION NAME YEARS MONTH
PAGE 1 1600-2000
HOURS (L.S.T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	D.B. W.B.	Dry Bulb	Wet Bulb	Dew Point
6 / 47			.1																														1	1		
4 / 45			.1																														1	1	1	
4 / 43		.7	1.1																														15	15	15	7
4 / 41	2.1	2.8																															47	40	26	32
4 / 39	1.5	1.4	.9																														30	30	27	26
3 / 37	3.6	2.0																															45	45	40	38
3 / 35	1.2	4.9	.4																														53	53	36	24
3 / 33	7.1	4.6	.2																														97	97	111	75
2 / 31	7.8	5.8	.1																														111	111	133	111
2 / 29	5.2	6.4	.4																														97	97	94	96
2 / 27	7.0	5.8	.5																														108	108	91	108
2 / 25	4.2	2.1																															51	51	61	59
2 / 23	3.9	.9																															39	39	47	71
2 / 21	2.5	.1																															21	21	26	37
2 / 19	1.7	.5																															18	18	15	30
2 / 17	2.1	.2																															19	19	23	19
1 / 15	1.5	.5																															16	16	15	18
1 / 13	1.2	.2																															12	12	13	17
1 / 11	1.5																																12	12	12	15
1 / 9	1.0	.1																															9	9	8	16
1 / 7	.4	.2																															5	5	4	3
1 / 5	.4	.1																															4	4	5	2
1 / 3	.4																																3	3	4	4
1 / 1	.4																																3	3	3	5
1 / -1	.1	.1																															2	2	1	2
- / -3																																			1	2
- / -5																																				1
- / -9																																				1
TOTAL	57.4	40.1	2.5																														812	812	812	812

Element (X)	$\Sigma x'$	Σx	\bar{x}	s_x	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	7.76782	75.54	93.0	7.751	812	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Dry Bulb	751738	2384	29.4	7.992	812	.2	60.7					93
Wet Bulb	723753	23395	28.8	7.829	812	.2	63.7					93
Dew Point	672566	22364	27.5	8.356	812	.7	69.9					93

USAFETAC FORM 84 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

YEARS

FEB
MONTH

PAGE 1 ~~0000-0200~~
HOURS (L. S. T.)

[illegible]

PSYCHROMETRIC SUMMARY

YEARS

FE3
MONTH

PAGE 1 0300-0500
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																								TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	= 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point							
47 / 47		.1																1	1									
46 / 45		.3	.1															3	3	1								
45 / 43																				2	1							
44 / 41	1.4	1.4																22	22	16	14							
43 / 39	1.8	.9																21	21	21	20							
42 / 37	3.3	1.6	.1															38	38	32	30							
41 / 35	2.5	2.8	.1															41	41	33	32							
40 / 33	8.4	1.4																75	75	65	68							
39 / 31	8.6	3.7	.1															94	94	99	86							
38 / 25	5.1	5.1																78	78	77	63							
37 / 27	11.1	3.7	.1															113	113	110	108							
36 / 25	7.8	2.4	.3															79	79	74	78							
35 / 23	6.1	1.8																60	60	64	77							
34 / 21	3.0	.7																28	28	34	47							
33 / 19	1.7	.7																18	19	18	23							
32 / 17	1.7	.7	.1															19	19	20	19							
31 / 15	1.4																	11	11	15	20							
30 / 13	1.2	.1																10	10	10	13							
29 / 11	.8																	6	6	6	9							
28 / 9	.8																	6	6	6	9							
27 / 7	.5																	4	4	4	6							
26 / 5	1.7	.1																14	14	13	11							
25 / 3	.9																	7	7	8	7							
24 / 1	.1																	1	1	1	6							
23 / -1	.9																	7	7	7	9							
22 / -3	.1																	1	1	1	1							
21 / -5	.1																	1	1	1								
20 / -7	.3																	2	2	2								
19 / -9																					1							
18 / -13																					2							
TOTAL	71.4	27.5	1.1																760	761	760							
																			760		760							
Element (X)	Σ X'		Σ X		X̄		s _x		No. Obs.		Mean No. of Hours with Temperature																	
Rel. Hum.	6810791		71715		94.4		7.582		760		= 0 F		= 32 F		= 67 F		= 73 F		= 80 F		= 93 F		Total					
Dry Bulb	634414		20998		27.6		8.526		761		1.2		61.8										84					
Wet Bulb	616706		20686		27.2		8.409		760		1.2		63.7										84					
Dew Point	578970		19868		26.1		8.860		760		1.4		65.8										84					

PSYCHROMETRIC SUMMARY

YEARS

FEB
MONTH

PAGE 1 ~~C630-0800~~

[illegible]

PSYCHROMETRIC SUMMARY

YEARS

FEB
MONTH

PAGE 1 C9CO-1100
HOURS (L. S. T.)

[illegible]

USAFETAC
FORM 0-26-5 (OL A)
JUL 64
REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

YEARS

~~SECRET~~

PAGE 1 1200-1400
HOURS (L-17)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B.-W.B.	Dry Bulb	Wet Bulb	Dew Point														
51 / 55							.1											1	1																
47 / 53					.4													3	3																
42 / 51				.5														4	4																
37 / 49			.4	.4	.3	.1												9	9																
34 / 47			.4	.9	.3													12	12	1															
31 / 45		.9	1.8	1.2	1.0	.3												40	40	9															
24 / 43		1.7	1.2	.8		.1												29	29	33	1														
18 / 41	1.6	5.6	1.7	1.7	1.2													90	90	49	29														
14 / 39	1.6	3.5	2.5	.8	.3	.3												68	68	60	52														
10 / 37	1.4	3.8	3.0	2.1	.1													80	80	64	57														
7 / 35	2.8	6.7	2.8	.8														99	99	91	68														
3 / 33	3.9	6.3	2.4	.5	.1													101	101	125	56														
2 / 31	2.0	4.5	2.1	.3	.3													69	69	123	84														
1 / 29	1.4	4.2	1.6															55	55	66	102														
2 / 27	1.7	6.3	1.0															69	69	79	82														
2 / 25	1.8	1.2	.1															24	24	42	66														
24 / 23	.3	.8																8	8	14	96														
22 / 21	.1																	1	1	5	25														
2 / 19																				1	18														
14 / 17																					12														
10 / 15																					6														
14 / 13																					5														
11 / 11																					1														
1 / 9																					2														
TOTAL	19.545	721.0	9.4	4.2	1.0	.1												762	762	762															

Element (X)	Σx^2	Σx	\bar{x}	s_x	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	5691797	61299	80.914	5.27	762	≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F	
Dry Bulb	1008319	27347	35.9	5.943	762		24.9					84
Wet Bulb	882086	25622	33.6	5.197	762		36.4					84
Dew Point	715617	22863	30.0	6.241	762		55.0					84

PSYCHROMETRIC SUMMARY

73-81

YEARS

FEB
MONT:

PAGE 1 1500-1700
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	+31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point														
51 / 55						.1	.1											2	2																
47 / 53			.1	.3	.5	.3												9	9																
42 / 51			.4	.3		.4												8	8																
5 / 49			1.0	.4	.4													14	14	1															
47 / 47	.3	.1	.7	.4	.1	1.3												22	22	8	2														
47 / 45	.4	1.6	1.8	1.4	1.3	.3												52	52	22	4														
44 / 43	.1	1.0	1.2	.8	.8													30	30	15	7														
42 / 41	1.3	5.2	2.5	2.6	.5	.4												96	96	42	36														
4 / 39	1.3	1.6	2.2	.8	.3													47	47	69	44														
3 / 37	1.4	4.7	2.4	2.1	.3													83	83	63	53														
37 / 35	2.6	5.6	3.5	.4														93	93	102	51														
34 / 33	4.1	5.2	2.0	.1														87	87	110	74														
32 / 31	2.0	5.1	2.1															70	70	126	90														
2 / 29	1.8	4.5	2.1	.3														66	66	69	87														
27 / 27	2.1	5.1	1.3															65	65	66	125														
27 / 25	.4	1.0																11	11	31	62														
24 / 23	.1	.8																7	7	16	67														
22 / 21																				2	24														
2 / 19																					24														
18 / 17																					13														
17 / 15																					5														
1 / 11																					1														
TOTAL	18.0	41.7	23.4	9.8	4.2	2.8	.1											762	762	762	762														

USAFETAC FORM 0-26-5 (OL A) JAN 64
REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

YEARS

~~FEB~~
MONTH

PAGE 1 ~~1800-2000~~

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																				TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point			
5 / 49					.3													2	2					
4 / 47		.4																4	4	3				
4 / 45	.1	.5	.5															9	9	1	4			
4 / 43	.5	.5	.5	.1														13	13	13	4			
42 / 41	1.0	2.9	1.3	.4														43	43	19	14			
4 / 39	2.9	3.0	2.0	.3														62	62	46	33			
3 / 37	2.2	3.8	1.2	.1														56	56	48	31			
2 / 35	3.7	6.4	2.4	.3														97	97	63	68			
34 / 33	5.6	5.8	1.3	.1														98	98	114	78			
32 / 31	3.1	6.7	1.8															89	89	118	65			
3 / 29	1.8	9.8	1.0															97	97	84	55			
2 / 27	6.6	7.1	.4	.1														108	108	118	147			
2 / 25	1.2	2.5	.4															31	31	47	73			
2 / 23	1.7	1.4	.3															26	26	26	76			
2 / 21	1.6	.4	.1															16	16	25	38			
2 / 19	.8	.1																7	7	11	25			
1 / 17																				2	11			
1 / 15	.1	.1																2	2	2	8			
1 / 13																					4			
1 / 11		.1																1	1		3			
1 / 9		.1																1	1	2	2			
5 / 7																					1			
4 / 3																					1			
2 / 1																					1			
TOTAL	33.15	1.8	13.3	1.6	.3													762	762	762	762			

PSYCHROMETRIC SUMMARY

FEB
MONTH

PAGE 1 2100-2300
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																														TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	= 31	D.B.-W.B.	Dry Bulb	Wet Bulb	Dew Point													
4 / 47		.4																3	3	3														
46 / 45		.3		.3														4	4		3													
44 / 43	.1	.4	.1															5	5	5	1													
42 / 41	1.6	.1	.1															14	14	17	17													
4 / 39	2.2	1.7	.5															34	34	17	18													
38 / 37	2.2	3.1																41	41	31	21													
36 / 35	3.8	4.5	.3	.1														66	66	66	46													
34 / 33	8.1	5.4	.9															110	110	99	75													
32 / 31	5.2	6.3	.5															92	92	124	90													
30 / 29	2.6	6.8	.5															76	76	66	62													
28 / 27	17.0	8.4	.8															146	146	130	176													
26 / 25	4.9	3.3																62	62	79	62													
24 / 23	3.3	1.6	.1															38	38	46	106													
22 / 21	1.3	.5	.4															17	17	17	34													
20 / 19	1.4	.4																14	14	16	21													
18 / 17	1.2	.3																11	11	17	17													
16 / 15	.7																	5	5	5	16													
14 / 13	.5	.4																7	7	7	9													
12 / 11	.7																	5	5	5	9													
10 / 9	.8																	6	6	6	11													
8 / 7		.1																1	1		1													
6 / 5		.1																1	1	1	1													
4 / 3	.3																	2	2	3														
2 / 1	.3																	2	2	2														
0 / -1																					5													
-2 / -3																					1													
TOTAL	51.2	44.1	4.3	.4															762		762													
																			762		762													

PSYCHROMETRIC SUMMARY

1 6872 GRAFENWOHR AAF DL
STATION STATION NAME

73-81

YEARS

FFB

PAGE 1

HOURS 11:00 A.M. - 7:00 P.M.

[illegible]

PSYCHROMETRIC SUMMARY

FEB
MONTH

ALL
HOURS (L. S. T.)

[illegible]

PSYCHROMETRIC SUMMARY

73-81

YEARS

4A9
MON-F

PAGE

2300-2500
HOURS S. T.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	+31	D.B. W.B.	Dry Bulb	Wet Bulb	Dew Point														
2 / 51			.4	.5														7	7	3															
5 / 49			.8	.1														8	8	3	3														
4 / 47		.7	1.1	.4														16	16	16	9														
4 / 45		.6	2.3	.4	.1	.1												29	29	14	16														
4 / 43		.7	1.6	.1	.2													22	22	70	22														
42 / 41	3.1	4.7																65	65	42	51														
4 / 39	3.2	2.9	1.7															59	59	60	51														
3 / 37	4.3	3.2																63	63	63	53														
3 / 35	3.9	4.5																71	71	72	63														
3 / 33	4.7	3.6	.4															72	72	84	65														
2 / 31	6.8	4.5	1.7															103	103	112	111														
2 / 29	2.9	4.3	.4															63	63	73	54														
2 / 27	7.2	4.9																101	101	98	89														
2 / 25	3.6	2.2																48	48	53	71														
2 / 23	3.7	1.9																47	47	43	77														
2 / 21	1.3	.7																17	17	21	32														
2 / 19	.6	.2																7	7	11	17														
1 / 17	1.3	.1																12	12	14	17														
1 / 15	.5																	4	4	4	7														
1 / 13	.2																	2	2	2	6														
1 / 11	.2		.1															3	3	2	5														
1 / 9	.1	.2																3	3	2	7														
1 / 7	.2																	2	2	4	2														
1 / 5	1.1																	9	9	9	6														
1 / 3	.2																	2	2	2	2														
1 / 1																					3														
- / -3																					2														
- / -7																					1														
TOTAL	51.3	44.1	4.2	.4	.1														837		837	F 37													

Element (X)	$\Sigma X'$	ΣX	\bar{X}	σ_x	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	7121432	76860	91.3	8.718	837	$\leq 0 F$	$\leq 32 F$	$\leq 67 F$	$\leq 73 F$	$\leq 80 F$	$\leq 93 F$	
Dry Bulb	253226	27405	32.7	8.165	837		47.7					43
Wet Bulb	906733	26747	32.5	7.888	837		49.4					43
Dew Point	835431	25565	30.5	8.371	837			.3	56.1			43

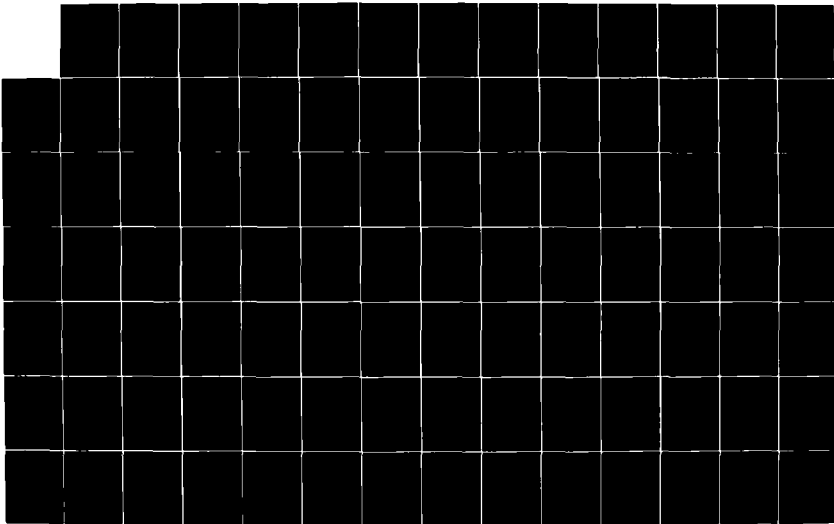
USAFETAC FORM 0-26-5 (OL A)
3-8-64
REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

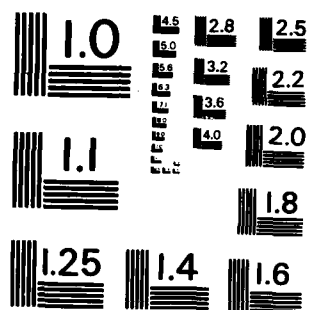
AD-A122 717

GRAFENWOHR AAF GERMANY (WEST) REVISED UNIFORM SUMMARY
OF SURFACE WEATHER..(U) AIR FORCE ENVIRONMENTAL
TECHNICAL APPLICATIONS CENTER SCOTT A.. 03 SEP 82
UNCLASSIFIED USAFETAC/DS-82/082 SBI-AD-EBBO 210 P/G 4/2

4/5

NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

PSYCHROMETRIC SUMMARY

YEARS

MAR
MONTH

PAGE 1 ~~C600-0830~~
HOURS 11. 5. 7.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point															
4 / 53			.1															1	1																	
2 / 51		.1	.2	.4														6	6	2	1															
5 / 49		.6	1.1	.8														21	21	12	6															
4 / 47		.6	.8	.5														16	16	16	10															
4 / 45		.4	3.0	.1														29	29	22	16															
4 / 43		.8	1.3	.8														25	25	31	31															
2 / 41	2.4	4.4	.5															61	61	40	46															
4 / 39	3.6	3.3	.7															64	64	63	47															
3 / 37	3.1	4.1	.6															65	65	57	59															
2 / 35	3.8	3.6	.4															65	65	80	63															
3 / 33	5.1	4.1	.4															80	80	80	81															
2 / 31	8.2	5.7	.5															121	121	136	161															
2 / 29	4.7	3.8	.1															72	72	72	83															
2 / 27	5.3	3.2																71	71	80	73															
2 / 25	2.6	1.4																34	34	38	56															
2 / 23	2.7	1.3																34	34	28	71															
2 / 21	2.1	.4																20	20	25	25															
2 / 19	1.2	.7																16	16	13	16															
2 / 17	1.3																	11	11	17	15															
1 / 15	.8	.1																8	8	7	11															
1 / 13	.4	.5																7	7	6	5															
1 / 11	.1																	1	1	3	4															
1 / 9	.1																	1	1	1	6															
1 / 7	.1																	1	1	1	1															
1 / 5	.7																	6	6	6	6															
1 / 3	.1																	1	1	1	3															
1 / 1																					1															
TOTAL	51.34	3.2	5.7															837	837	837	837															

Element (X)	Σ X'	Σ X	X̄	s _x	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	7143724	77010	92.0	8.347	837	≥ 0 F	≥ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Dry Bulb	985904	27896	33.3	8.197	837		44.9					93
Wet Bulb	937926	27234	32.5	7.871	837		48.2					93
Dew Point	869975	26099	31.2	8.197	837		53.0					93

PSYCHROMETRIC SUMMARY

YEARS

MAR
MONTH

PAGE 1 2900-1100
HOURS: 11:50 A.M.

PSYCHROMETRIC SUMMARY

YEARS

~~MAD~~
MONTE

PAGE 1 1250-1400
HOLMES J. S. T.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																				TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	>31	D.B.-W.B.	Dry Bulb	Wet Bulb	Dew Point			
69						.1	.1	.2										4	4					
67						.1	.2											3	3					
65						.8	.4	.1										11	11					
63				.2		.7	.7	.2										16	16					
61				.1	.7	.6	.1											13	13					
59			.4	.8	1.9	.7	.7	.5										42	42	1				
57	.1	.1	.1	.4	.5	.5	.5											18	18	11	1			
55		.1	.1	.7	1.6	.7	.4											30	30	17				
53	.1	.4	.4	.5	.8	1.1												27	27	29	5			
51	.4	.7	1.3	.7	1.7	.4	.2											45	45	30	12			
49	.4	.5	1.2	1.9	1.8	.2												50	50	30	19			
47	.1	.6	1.0	1.4	1.2	.2	.1											39	39	53	26			
45	.2	1.4	3.2	2.9	1.0	.2	.1											76	76	71	42			
43	.2	1.7	2.3	2.2	.6													58	58	64	33			
41	1.1	3.9	3.6	2.2	1.8	.5												109	109	77	71			
39	1.0	3.2	2.4	1.2	1.2	.1												74	74	73	66			
37	1.4	2.7	2.3	1.8	.5													73	73	95	90			
35	.7	2.4	3.5	.4														58	58	77	67			
33	1.4	2.6	1.2	.4														47	4	74	63			
31	.4	1.3	.7	.2														22	22	83	95			
29	.4	.5	.1															8	8	30	51			
27		.5	.6															9	9	10	64			
25		.5																4	4	10	38			
23		.1																1	1	2	51			
21																					14			
19																					10			
17																					12			
15																					2			
13																					3			
11																					2			
TOTAL	7.9	23.3	24.3	17.9	14.9	7.0	3.6	1.1										837		837				
																		837		837				
Element (X)	ΣX'		ΣX		Σ		Σ		No. Obs.		Mean No. of Hours with Temperature										Total			
Rel. Hum.	4388527		58977		70.516.689		837		± 0 F		± 32 F		± 67 F		± 73 F		± 80 F		± 93 F		Total			
Dry Bulb	1734311		37341		44.6 9.047		837				4.9		.8								93			
Wet Bulb	1397235		33647		40.2 7.307		837				15.0										93			
Dew Point	1067942		29136		34.8 8.016		837				38.0										93			

PSYCHROMETRIC SUMMARY

YEARS

MAE
MONTH

PAGE 1 1500-1700
HOURS 11-5-1

[illegible]

PSYCHROMETRIC SUMMARY

73-81

YEARS

~~MAJ~~
MONI

PAGE 2 15CO-1730
HOURS (L. 3. 30)

[illegible]

PSYCHROMETRIC SUMMARY

16875 GRAFEN-DR AAF DL
STATION STATION NAME

73-21

YEARS

MAR
MONTH

PAGE 1 ~~2100-2300~~

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B.-W.B.	Dry Bulb	Wet Bulb	Dew Point														
5 / 57				.4														3	3																
5 / 55			.4	.1														4	4																
4 / 53		.1	.6	.5	.1													11	11	1															
4 / 51	.1	.4	.5	.4	.1													12	12	8	2														
5 / 49		2.4	1.1		.7	.1												36	36	12	1														
4 / 47	.1	1.2	1.4		.2													25	25	30	14														
4 / 45	1.1	3.0	1.6	1.0	.1													56	56	45	41														
4 / 43	.4	1.3	.8	.4														24	24	38	27														
4 / 41	1.4	4.2	1.6	.5														64	64	39	51														
4 / 39	3.1	5.1	1.6															82	32	74	47														
3 / 37	2.7	4.2	.8		.1													66	66	77	59														
3 / 35	1.3	4.7	1.6		.1													81	81	89	63														
3 / 33	6.1	6.0	.8	.4														111	111	177	104														
2 / 31	5.0	5.5	1.7	.1														103	103	127	102														
2 / 29	1.7	5.6	.6															66	66	66	70														
2 / 27	1.7	2.7	.7															43	43	57	88														
2 / 25	.2	1.4	.1															15	15	25	40														
2 / 23	.6	2.0	.1															23	23	19	39														
2 / 21	.2	.4																5	5	13	24														
1 / 19	.4	.1																4	4	6	16														
1 / 17	.1	.1																2	2	2	12														
1 / 15	.1																	1	1	2	10														
1 / 13																					5														
1 / 11																					2														
TOTAL	28.4	50.4	15.9	3.6	1.6	.1													837		837														
																		A37		A37															

Element (X)	Σ X'	Σ X	X̄	s _x	No. Obs.	Mean No. of Hours with Temperature					Total	
Rel. Hum.	6355721	72296	86.4	11.530	837	≥ 0 F	≥ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Dry Bulb	1171125	30705	36.7	7.314	837		29.1					93
Wet Bulb	1069965	29389	35.1	6.746	837		35.2					93
Dew Point	944163	27431	32.8	7.350	837		45.3					93

PSYCHROMETRIC SUMMARY

73-21

YEARS

~~MAR~~
MONTH

PAGE 2

HOURS ~~ALL~~ 12-3-5-7-9

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL						
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point		
/ 5				.2																															16	16	16	17
/ 7				.2																															3	3	3	5
/ 1																																						4
- / -3																																						4
- / -7																																						1
TOTAL	2	137.2	17.2	8.0	5.2	2.4	1.3	.4	.1																									6695	6695	6695		
																																			6695	6695		

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

6870 GRAFENWOHR AAF DL
STATION STATION NAME

73-81

YEARS

APR
MONTH

PAGE 1 0300-0500
HOURS

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B.-W.B.	Dry Bulb	Wet Bulb	Dew Point																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

Element (X)	ΣX^2	ΣX	\bar{X}	σ_x	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	6592674	71902	90.7	9.618	793	≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F	
Dry Bulb	979216	27332	34.5	6.851	793		39.7					90
Wet Bulb	921866	26557	33.5	6.451	793		44.8					90
Dew Point	843113	25295	31.9	6.766	793		52.9					90

PSYCHROMETRIC SUMMARY

AP 3
MONTH

2600-2800
HOURS L. S. T.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	D.B. W.B.	Dry Bulb	Wet Bulb	Dew Point
4 / 53			.1	.1																													2	2		
2 / 51			.5	.1	.1					.1																							7	7	11	4
5 / 49	.4	1.0	.6	.3	.1	.1																										20	27	11		
6 / 47	1.0	1.3	.8	.1	.1																											24	24	17	14	
4 / 45	1.1	3.0	2.8	1.1	.1	.1																										66	66	31	23	
4 / 43	.9	3.3	1.4	.3																												44	44	46	23	
2 / 41	2.6	5.3	1.5	.8	.1																											82	32	70	61	
4 / 39	1.6	3.3	1.9	.3																												56	56	63	52	
3 / 37	3.6	4.1	1.5	.9	.1																											62	52	69	59	
2 / 35	3.8	5.4	1.5	.3																												62	67	93	79	
3 / 33	5.1	5.6	.8	.1																												93	93	106	84	
2 / 31	5.4	5.9	.1	.1																												100	100	141	119	
2 / 29	2.5	3.8																														50	50	53	86	
2 / 27	3.9	1.5	.4																													46	46	50	92	
2 / 25	2.0	.5																														20	27	24	43	
2 / 23	.4	1.0																														11	11	7	36	
2 / 21	.5																															4	4	13	5	
2 / 19	.3																															2	2	2	10	
2 / 17	.1																															1	1	1	5	
1 / 15																																			2	7
2 / 13																																				
1 134	36	345	013	4	4	3	.6	.4					</																							

USAFETAC
FORM
AN 44
0-26-5 (OL A)
REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

APR
MONTH

PAGE 1 1200-1400
HOURS (L. S. T.)

[illegible]

PSYCHROMETRIC SUMMARY

73-21

YEARS

~~APR~~
~~MONTH~~

PAGE 1 ~~165C-174C~~

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B.-W.B.	Dry Bulb	Wet Bulb	Dew Point														
4 / 72										.1		.1						2	2																
7 / 71										.5	.4	.6	.3					14	14																
7 / 69									.4	.1	.3	.3						8	8																
8 / 67					.1	.1		.8	.3	1.6	.4							26	26																
6 / 65							.8	1.0	1.3	.3								26	26																
4 / 63				.3	.1	.5	1.9	2.1	1.1									42	48																
2 / 61			.1		.1	1.1	1.6	.3	.6									31	31	1															
7 / 59			.9	.6	1.3	2.5	1.5	.3										72	72																
5 / 57			.1	.9	1.0	.8	.4	.3										27	27	8	1														
5 / 55			.1	.1	.4	1.3	1.1											24	24	13	2														
4 / 53		.1	.8	1.3	1.6	1.8	.8	.3	.1									53	53	37	1														
2 / 51		.6	1.1	.8	1.8	1.3	.3	.6										51	51	56	2														
5 / 49		.1	.5	1.0	1.1	1.4	.5											37	37	91	12														
7 / 47	.1	.3	.6	1.4	1.9	1.8	.4											51	51	66	8														
4 / 45	.3	1.3	2.8	3.1	2.3	1.3												87	87	75	30														
4 / 43		.4	1.4	2.8	1.0	.3												46	46	68	42														
4 / 41	.3	2.9	2.5	2.9	1.6	.4												84	84	69	71														
4 / 39	.9	2.1	2.5	.9	.3													53	53	97	64														
3 / 37	1.1	.9	.8	.1														23	23	95	85														
2 / 35	.4	1.9																18	18	71	89														
3 / 33	.8	.8																12	12	40	85														
2 / 31	.5																	4	4	12	104														
7 / 29																					63														
2 / 27																					54														
2 / 25																					31														
2 / 23																					28														
2 / 21																					15														
2 / 19																					4														
1 / 17																					4														
1 / 15																					1														
1 / 13																					1														
TOTAL	4.311	313	315	413	815	310	5	7.3	4.6	2.5	1.4	.3						797	797		797														
																		797		797															
Element (X)	Zx'	Zx	X	σx	No. Obs.	Mean No. of Hours with Temperature						Total																							
Rel. Hum.	2960659	45.13	57.619	9.16	797	≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F	Total																							
Dry Bulb	2142617	40587	50.9	9.754	797		.5	5.6	.2			92																							
Wet Bulb	1527122	34530	43.3	6.252	797		1.1					90																							
Dew Point	1000012	27734	34.8	6.624	797		34.4					90																							

PSYCHROMETRIC SUMMARY

APR
MONTH

PAGE 1 1800-2200
HOURS L. S. T.

[illegible]

PSYCHROMETRIC SUMMARY

YEARS

~~APR~~
MONTH

PAGE 1 2100-2300
HOURS 11:30 P.M.

[illegible]

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AF WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1 277 GRAFENWOHR AAF DL
STATION STATION NAME

73-61

YEARS

APR
MONTH

PAGE 1

ALL
HOURS U. S. T.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	D.B. W.B.	Dry Bulb	Wet Bulb	Dew Point				
47 73											.0	.0			.0														3	3					
47 71											.0	.1			.1	.1	.0												17	17					
47 69										.0	.1	.1			.1	.0													19	19					
47 67								.0	.0	.0	.2	.1			.3	.1													47	47					
67 65								.0	.2	.4	.3	.1	.0																64	64					
47 63				.2	.3	.1	.3	.7	.7	.3	.0																		131	131					
47 61			.0	.0	.1	.5	.5	.2	.1	.0																			90	90	1				
47 59		.2	.1	.3	.5	1.2	.9	.3	.1																				216	216	3				
47 57		.1	.3	.4	.6	.7	.3	.1	.1																				121	121	16	3			
57 55		.2	.3	.2	.5	.7	.4	.0																					136	136	41	4			
47 53	.1	.1	.4	.8	.8	.6	.3	.1	.0																				199	199	104	11			
27 51	.1	.5	.7	.7	.9	.5	.2	.1																					236	236	212	22			
57 49	.4	.6	1.2	1.7	.9	.6	.3																						313	313	300	62			
47 47	.4	.8	1.3	.9	.8	.5	.1																						311	311	337	98			
47 45	.8	2.7	2.6	1.9	1.7	.3	.0																						590	590	513	243			
47 43	.5	2.2	1.4	1.2	.5	.2																							371	371	484	238			
27 41	1.4	4.4	2.6	1.9	.7	.1																							709	709	559	623			
47 39	1.2	2.5	2.5	.5	.1																								433	433	589	517			
27 37	.1	3.3	1.7	.5	.1																								443	443	590	598			
27 35	1.0	4.1	1.1	.1																									448	448	711	562			
37 33	3.2	3.8	.6	.0																									490	497	625	646			
47 31	3.1	3.0	.3	.2																									402	402	619	873			
47 29	1.2	2.2	.1																										218	218	253	555			
27 27	2.1	1.1	.1																										203	203	210	594			
47 25	1.7	.3																											83	83	108	264			
27 23	.3	.4																											42	42	42	248			
27 21	.3																												17	17	35	97			
47 19	.1	.7																											10	10	9	60			
47 17	.7																												3	3	4	34			
17 15	.1																												2	2	2	10			
17 13																																	6		
17 11																																	1		
TOTAL	19.9	31.9	16.3	10.4	7.4	6.1	3.9	2.2	1.1	.6	.2	.0																	6367	6367	6367	6367			
																															6367		6367		
Element (K)	Z _g	Z _h	X	Y	No. Obs.	Mean No. of Hours with Temperature						Total																							
Rel. Hum.	39062997	482359	75.8	19.895	6367	≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F	Total																							
Dry Bulb	1 192118	271302	42.6	9.962	6367		110.9	9.7	.3			720																							
Wet Bulb	9930551	247297	39.8	7.150	6367		145.0					720																							
Dew Point	7778448	218456	34.3	6.668	6367		310.1					720																							

USAFETAC FORM 44 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

1 6370 STATION GRAFENWOHR AAF DL STATION NAME

73-81

YEARS

MAY
MONTH

PAGE 1

0000-0200

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B. Wet Bulb	Wet Bulb Dew Point																
4 / 63				.1				.1										2	2																
4 / 61			.1			.2	.4	.1										7	7																
4 / 59		.2	.6	.1	.6	.2												15	15	2															
4 / 57		.5	1.2	.9	.2													23	23	3	1														
5 / 55		1.2	1.5	1.0	.2													32	32	8	4														
4 / 53	1.5	3.4	2.4	.2														62	62	43	19														
4 / 51	3.0	3.8	1.6	.5														73	73	83	52														
5 / 49	2.3	6.3	2.6	.2														94	94	84	67														
4 / 47	2.1	4.4	1.7		.1													68	68	86	70														
4 / 45	3.2	5.2	1.8	.6	.5													93	93	101	122														
4 / 43	3.5	2.4	1.3	.4														63	63	75	82														
4 / 41	3.8	4.6	1.2	.6														84	84	65	91														
4 / 39	2.1	3.5	.7	.9														59	59	67	50														
3 / 37	2.2	2.8	.5															45	45	65	64														
3 / 35	.5	3.0	.5															33	33	41	40														
3 / 33	.7	2.1																23	23	41	41														
2 / 31	.7	1.3																17	17	26	43														
2 / 29	.5	.9	.1															12	12	11	25														
2 / 27	1.1	1.1																17	17	19	35														
2 / 25																				2	12														
2 / 23																					7														
2 / 21																					2														
TOTAL	27.7	747.0	17.8	5.5	1.9	.6	.2												822		822	822													

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1 6870 GRAFFENWOHR AAF DL STATION NAME

73-81

YEARS

MAY
MONTH

PAGE 1 0600-1800
HOURS

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL D.B. W.B. Dry Bulb			TOTAL Wet Bulb Dew Point																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

Element (X)	$\Sigma x'$	Σx	\bar{x}	s^2	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	5862214	68638	82.914	4.38	828	= 0 F	= 32 F	= 67 F	= 73 F	= 80 F	= 93 F	
Dry Bulb	1928804	39472	47.7	7.548	828		3.2	.2				93
Wet Bulb	1709783	37243	45.0	6.469	828		4.2					93
Dew Point	1520486	35024	42.3	6.866	828		11.3					93

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1 6870 GRAFENWOHR AAF DL 73-81 MAY
STATION STATION NAME YEARS MONTH

PAGE 1 1955-1100
HOURS S. Y.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point														
81										.1	.1							2	2																
79										.1	.1							2	2																
77							.1			.4	.1							5	5																
76/ 75						.1		.2	.8	.1	.1							12	12																
74/ 73							.5	1.1	.1	.1								15	15																
72/ 71				.1		.1	.4	.7	.7	.4								27	27																
70/ 69				.1		.4	1.2	.7	.6									25	25																
68/ 67			.1		.2	1.1	.8	.6	.2									26	26																
66/ 65				.4	1.0	1.3	.7											28	28	4															
64/ 63			.1	1.1	1.4	2.2	1.2	.7	.1									57	57	3	1														
62/ 61		.1	.6	.6	1.3	1.9	.8	.5										49	49	14	1														
60/ 59		.2	1.8	2.0	3.1	1.6	2.0	.5										94	94	32	3														
58/ 57		.8	1.6	3.7	1.6	1.3	.7	.1										82	82	53	4														
56/ 55	.1	1.7	1.6	3.2	1.3	.5	.8											77	77	79	12														
54/ 53	.1	2.0	2.2	2.3	2.5	.7	.2											84	84	90	34														
52/ 51	.8	1.4	2.2	1.4	.8	1.1	.4											68	68	124	61														
50/ 49	.6	1.7	1.2	1.4	.6	.5	.1											51	51	98	81														
48/ 47	1.0	1.8	1.0	.6	.5	.5												44	44	112	83														
46/ 45	.5	1.1	1.0	1.1	.7	.4												39	39	87	138														
44/ 43	.7	.6	.8	.5														22	22	37	100														
42/ 41		.1	1.2	.1	.4													15	15	35	87														
40/ 39	.5	.1	.1	.2														8	8	21	53														
38/ 37	.5	.1																5	5	21	39														
36/ 35	.1	.2																3	3	6	41														
34/ 33		.1																1	1	8	19														
32/ 31																					37														
30/ 29																					14														
28/ 27																					15														
26/ 25																					5														
24/ 23																					5														
22/ 21																					3														
TOTAL	4.9	12.0	15.6	18.6	14.9	13.2	10.7	5.9	3.0	.8	.5							834	834		834														
																		834	834		834														
Element (X)	Z _X ¹	Z _X	R	σ _n	No. Obs.	Mean No. of Hours with Temperature					Total																								
Rel. Hum.	3669866	53278	63.9	17.881	834	≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F																								
Dry Bulb	2734678	47248	56.7	8.342	834			11.9	4.7	.2		93																							
Wet Bulb	2098695	41541	49.8	5.958	834							93																							
Dew Point	1617238	36258	43.5	7.007	834		8.8					93																							

PSYCHROMETRIC SUMMARY

YEARS

MAY
MONTH

PAGE 2 1230-1403
HOURS: 8:30-5:00

USAFETAC FORM 0-26-5 (OL A)
REVISIED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

STATION 16870 DRAFEN DHR AAF DL
STATION NAME

73-61

YEARS

MAY
MONTH

PAGE 1 1500-1700
HOURS

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B. W.B.	Dry Bulb	Wet Bulb	Dew Point														
86/ 35																															2	2			
87/ 37																															3	3			
88/ 81																															15	15			
89/ 79																															11	11			
70/ 77																															38	38			
76/ 75																															22	22			
74/ 73																															30	30			
72/ 71																															29	29			
71/ 69																															43	43			
67/ 67																															41	41			
66/ 65																															45	45			
64/ 63																															87	88			
62/ 61																															51	51			
61/ 59																															99	99			
59/ 57																															58	58			
57/ 55																															67	67			
54/ 53																															43	43			
52/ 51																															44	44			
51/ 49																															19	19			
47/ 47																															19	19			
47/ 45																															32	32			
44/ 43																															7	7			
42/ 41																															13	13			
41/ 39																															10	10			
37/ 37																															15	15			
35/ 35																															3	3			
33/ 33																															2	2			
31/ 31																																			
29/ 29																																			
27/ 27																																			
25/ 25																																			
23/ 23																																			
19/ 19																																			
13/ 13																																			
7/ 7																																			
1/ 1																																			
Element (X)	ΣX^2		ΣX		\bar{X}		σ^2		No. Obs.		Mean No. of Hours with Temperature						Total																		
Rel. Hum.											$\leq 0 F$	$\leq 32 F$	$\leq 67 F$	$\leq 73 F$	$\leq 80 F$	$\leq 93 F$																			
Dry Bulb																																			
Wet Bulb																																			
Dew Point																																			

PSYCHROMETRIC SUMMARY

73-21

YEARS

MAY
MONTH

PAGE 2 1520-1700
HOURS 1520-1700

[illegible]

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1 6871 GRAFENWOHR AAF DL
STATION STATION NAME

73-81

YEARS

MAY
MONTH

PAGE 1 1800-2000
HOURS U.S.T.A.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B.	W.B.	Dry Bulb	Wet Bulb	Dew Point														
6 / 35																	.1																1	1		
6 / 53																	.1																1	1		
7 / 81																	.1	.1														3	3			
7 / 79																	.1	.4	.4													7	7			
7 / 77																	.4	.4	.4													9	9			
6 / 75																	.2	.1	.6													9	9			
4 / 73																	.4	1.0	.4	.4	.1											19	16			
7 / 71																	.7	1.2	1.6													29	20			
7 / 69																	.2	.1	1.1	.9	.1											21	2			
8 / 67																	.1	.2	.9	1.5	1.0	.4	.4									36	30			
6 / 65																	.2	.4	1.2	1.2	.6	.2	.2									34	34	2		
4 / 63																	.1	.5	1.3	2.4	1.6	1.6	.4									59	69	7		
7 / 61																	.2	.6	.9	1.7	1.9	.9	1.0	.1								56	56	16	1	
7 / 59																	.9	1.7	1.8	3.2	1.3	1.1	.1	.1								34	34	39	3	
7 / 57																	.1	1.6	1.7	1.7	1.1	1.7	.9	.1								67	67	63	11	
5 / 55																	.2	.7	1.3	2.1	2.2	1.2	.7	.5								74	74	96	15	
4 / 53																	.4	1.1	2.2	2.4	.9	.4	.2	.1								63	63	91	39	
5 / 51																	.7	1.9	1.5	.5	.5	.2	.4									47	47	88	37	
5 / 49																	.5	1.9	2.4	.6	1.3	.6										61	61	99	80	
7 / 47																	.4	1.3	1.3	.9	.4											35	35	111	74	
4 / 45																	.7	1.6	1.6	.5	1.0											44	44	71	162	
4 / 43																	.2	1.1	.6	.5												22	22	46	74	
2 / 41																	.4	.4	.5	.2	.1											13	13	44	102	
4 / 39																	.4	.7	.2	.1												12	12	15	50	
3 / 37																	.1	.6	.1													7	7	20	44	
6 / 35																	.1	.2														3	3	9	26	
3 / 33																																		5	33	
6 / 31																																	1	35		
7 / 29																																			14	
7 / 27																																			11	
7 / 25																																			10	
2 / 23																																			2	
TOTAL	4.1	14.3	15.3	13.2	14.2	12.0	10.8	8.3	4.4	1.8	1.2	.2																				823	823	823		
Element (X)	Z _x	Z _y	X	Y	No. Obs.	Mean No. of Hours with Temperature																														
Rel. Hum.	3538076	51618	62.7	19.124	823	≤ 0 F	≤ 32 F	≤ 47 F	≤ 73 F	≤ 80 F	≤ 93 F	Total																								
Dry Bulb	2791567	47346	57.8	9.083	823			15.1	5.4	.7		93																								
Wet Bulb	2104510	41316	50.2	6.079	823			.1				93																								
Dew Point	1601397	35855	43.6	6.917	823		8.1					93																								

USAFETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AF WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1 6970 SPAFENWHR AAF DL
STATION STATION NAME

73-81

YEARS

MAY
MONTH

PAGE 1 2100-2300
HOURS U.S.T.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL D.B. W.B.		TOTAL Wet Bulb Dew Point	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	Dry Bulb	Wet Bulb	Dew Point															
4 / 73							.1											1	1																
4 / 71										.1								1	1																
4 / 69					.2	.1		.1										4	4																
6 / 67						.2	.2											4	4																
6 / 65					.1	.2		.4										6	6																
4 / 63				.7	.6	.7	.5	.1										22	22	1															
2 / 61			.4	.9	1.7	.5		.1										23	23	3															
4 / 59	.2	.4	.9	3.3	1.9	.4	.1	.1										60	60	4															
4 / 57	.2	1.3	1.8	1.7	.5	.2												48	48	16															
5 / 55	1.1	1.7	2.8	1.3	.6	.2												63	63	52															
4 / 53	1.3	2.8	2.3	1.9	.9	.4												79	79	96															
2 / 51	1.2	3.3	2.1	1.9	.4	.2	.1											76	76	89															
4 / 49	1.7	3.6	3.2	1.2	.4	.4												86	86	96															
4 / 47	1.5	3.2	1.5	.4	.6	.2												62	62	96															
4 / 45	2.3	6.4	3.3	1.5	.5													115	115	106															
4 / 43	2.3	1.1	.9	.6	.6													45	45	83															
2 / 41	1.3	2.2	1.6	.6														47	47	53															
4 / 39	.6	1.3		.1														17	17	44															
4 / 37	.7	2.2	.4															27	27	33															
4 / 35	.1	1.1																12	12	26															
3 / 33		.6	.2															7	7	14															
4 / 31		1.1																9	9	12															
4 / 29	.1	.4																4	4	3															
4 / 27	.6	.5																9	9	12															
4 / 25																																			
4 / 23																																			
TOTAL	15.333	221	116.2	8.3	4.0	1.0	.9	.1										823	823	823															

Element (X)	ΣX^2	ΣX	\bar{X}	σ_x	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	5359216	65233	79.3	15.119	823	$\leq 0 F$	$\leq 32 F$	$\leq 67 F$	$\leq 73 F$	$\leq 80 F$	$\leq 93 F$	
Dry Bulb	2098128	4158	49.9	7.785	823		2.5	1.1	.1			93
Wet Bulb	1815129	38267	46.5	6.672	823		3.1					93
Dew Point	1579735	35565	43.2	7.219	823		10.7					93

PSYCHROMETRIC SUMMARY

73-61

YEARS

MAY
MONTH

PAGE 1

HOURS ALL DAY

[illegible]

0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

USAFETAC

PSYCHROMETRIC SUMMARY

73-61

YEARS

MAY
MONTH

PAGE 2

ALL -
HOURS 1-5-7

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	D.B. W.B. Dry Bulb	Wet Bulb Dew Point	
1 / 15																																		3	
1 / 13																																		1	
TOTAL	14.0	25.2	15.1	11.0	9.0	7.2	6.4	5.0	3.1	1.6	.9	.4	.0	.0																			6613	6612	
																																		6612	6612

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AFW WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1 6875 GRAFENWOHR AAF DL STATION NAME

73-81

YEARS

JUN
JUN

PAGE 1 3000-3200
HOURS 1. 5. 1.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																																	TOTAL D.B. W.B. Dry Bulb	TOTAL Wet Bulb Dew Point
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31																		
71			.1					.1																								2	2		
69				.1																												4	4		
67				.1	.1	.1	.5																								7	7	1		
65			.1	.4		.1																									5	5	1	1	
63		1.1	.7	1.3	.1																										24	24	4	1	
61		.6	2.1	1.2	.4	.6	.1																								41	41	22	8	
59	1.5	5.3	1.9	.9	.5																										91	91	41	36	
57	1.4	3.1	1.1	1.2	.1																										54	54	75	38	
55	2.9	3.9	1.6	.4																												73	73	7	75
53	2.2	2.1	2.5	.9																												118	118	77	71
51	4.1	5.2	1.9	.2																												92	92	130	98
49	4.8	4.8	2.2	.5																												98	98	100	114
47	2.4	3.5	1.7	.1																												56	56	75	86
45	2.4	5.2	.2	.1																												62	62	70	92
43	2.4	1.6																														72	32	63	73
41	.5	1.6	.2																													19	19	15	42
39	.7	.9	.1																													14	14	16	25
37	1.4	.6																														16	16	22	20
35	.7	.4																														5	5	6	13
33	.1	.4																														4	4	3	5
31	.1																															1	1	4	3
29																																			2
27																																			2
TOTAL	27.6	48.8	15.3	5.6	1.9	.6	.2																									805	805	805	805

Element (X)	Z ₁	Z ₂	X	σ _a	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	6372574	71162	88.4	10.090	805	± 0 F	± 32 F	± 67 F	± 73 F	± 80 F	± 93 F	
Dry Bulb	2243711	42159	52.4	6.671	805			.1	1.5			90
Wet Bulb	2080988	40638	50.5	6.057	805			.4	.1			90
Dew Point	1955811	39371	48.9	6.139	805			.8				90

USAFETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

YEARS

JUN
MONTANA

PAGE 1 0300-0500
HOURS 11-5 PM

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																														TOTAL			TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	> 31	D.B.-W.B.	Dry Bulb	Wet Bulb	Dew Point															
6 / 65			.2															2	2																	
4 / 63		1.1	.5	.4	.1													17	17	1																
1 / 61	.2	.9	.9	.1														17	17	15	5															
1 / 59	.9	3.7	.9	.5	.4													51	51	21	26															
1 / 57	2.6	4.0	.1	.5														58	58	57	37															
5 / 55	4.1	2.5	.4	.2														58	58	75	73															
4 / 53	3.1	4.6	.9	.4														72	72	55	50															
2 / 51	3.2	6.8	2.2	.1														96	96	79	56															
5 / 49	5.7	6.1	1.0															103	103	116	93															
1 / 47	4.7	3.5	1.1															69	69	92	101															
4 / 45	4.1	8.2	.1															99	99	78	114															
4 / 43	2.8	2.5																43	43	87	76															
2 / 41	3.5	2.6																49	49	43	76															
6 / 39	1.7	1.9																29	29	29	33															
3 / 37	1.5	.4																15	15	27	26															
1 / 35	1.2	.7																14	14	13	17															
3 / 33	.4	.2																5	5	9	9															
2 / 31	.4	.5																7	7	5	8															
1 / 29	.4	.1																4	4	6	3															
1 / 27																					5															
TOTAL	32.15	18.0	2.2	.5														608	608	808	808															

PSYCHROMETRIC SUMMARY

YEARS

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PAGE 1 250-2800

[illegible]

USAFETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

MCMTN

[illegible]

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1677 GRAFENWOHR AAF DL 73-81 YEARS

JUN
MONTH

PAGE 1 1500-1700
HOURS S Y

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B. W.B.	Dry Bulb	Wet Bulb	Dew Point														
4 / 93																	.1														1	1			
4 / 91																															1	1			
7 / 89										.1	.2					.1	.2														6	6			
8 / 87													.4	.4		.2	.1														9	9			
6 / 85												.2	.1	.7	.4																12	12			
4 / 83													.2	.5																	11	11			
7 / 81								.1	.1	.9	.6	1.1	1.2	.5																	37	37			
7 / 79								.1	1.1	1.1	.5	1.5																			35	35			
7 / 77							.1	.4	1.9	1.7	1.7	1.2	.1																		56	58			
5 / 75						.1	.4	1.7	1.9	1.2	.9	.5																			54	54			
4 / 73					.1	.5	1.9	1.7	1.0	.7	.1																				49	49			
7 / 71					.5	.6	2.1	1.1	1.2																						45	45			
7 / 69			.2	.1	.4	1.1	2.7	.6	.6	.2																					43	43			
7 / 67			.2		2.1	4.1	.5	.9	.5																						67	67			
6 / 65			.5	.2	1.9	1.9	.7	.2		.4																					47	47			
4 / 63	.1	.1	1.2	1.4	1.9	2.6	.7	1.0																							73	73			
7 / 61	.1	.6	.6	.7	1.7	1.1	.7																								46	46			
7 / 59	.1	.5	1.7	2.3	1.9	1.6	.1	.4																							61	61			
7 / 57	.1	.5	.6	1.9	1.5	.5	.1																								42	42			
5 / 55	.4	1.2	1.7	1.3	1.7	.5																									41	41			
4 / 53		.7	.7	.6	.6																										72	72			
7 / 51	.2	1.0	1.0	.5																											22	22			
5 / 49	.6	1.0	.5	.5																											71	71			
7 / 47		.2	.5																												6	6			
4 / 45	.1																														1	1			
4 / 43																																			
2 / 41																																			
4 / 39																																			
3 / 37																																			
4 / 35																																			
3 / 33																																			
2 / 31																																			
2 / 27																																			
Element (X)	ΣX^2	ΣX	\bar{X}	σ^2	No. Obs.	Mean No. of Hours with Temperature						Total																							
Rel. Hum.						$\leq 0 F$	$\leq 32 F$	$\leq 67 F$	$\leq 73 F$	$\leq 80 F$	$\leq 93 F$																								
Dry Bulb																																			
Wet Bulb																																			
Dew Point																																			

USAFETAC FORM 0-26-5 (OLA) REVIS 10-64

PSYCHROMETRIC SUMMARY

73-51

YEARS



15-17
HOURS

[illegible]

PSYCHROMETRIC SUMMARY

73-61

YEARS

JUN
MONTH

PAGE 1 1810-2200
HOURS 11:51

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL				TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	= 31	D.B. W.B. Dry Bulb	Wet Bulb	Dew Point																			
87 / 87												.1			.1			2	2																				
86 / 85															.1			1	1																				
84 / 83								.1			.2	.4	.2			.1		9	9																				
83 / 81							.4	.1	.4	.6	.5	.2	.1					19	19																				
82 / 79					.1		.2	.4	.2	.5	.4	.1						16	16																				
81 / 77					.4	.2	.6	1.6	.7	.9	.2							38	38																				
80 / 75					.7	1.7	1.7	1.7	.9	.4								46	46																				
79 / 73				.1	.2	1.2	1.1	1.4	.9	.4								41	41																				
78 / 71				.2	.5	1.1	2.7	1.1	.2									42	42																				
77 / 69			.2	.2	.9	1.5	1.6	.5	.1									41	41	5																			
76 / 67			.7	.9	1.2	2.7	.5	.5	.4	.1								57	57	6																			
75 / 65		.1	.2	.7	2.3	1.4	.4	.5		.2								48	43	26	1																		
74 / 63		.4	1.2	3.7	3.5	2.1	1.4	.2										101	101	56	11																		
73 / 61		.6	1.6	1.4	1.9	1.5	.2											58	58	86	19																		
72 / 59	.9	2.7	1.6	1.9	2.5	.6	.2	.1										79	79	106	35																		
71 / 57	.1	1.1	1.2	2.5	.2	.6	.1											48	48	143	42																		
70 / 55	.1	.7	2.7	2.7	.2	.1	.1											49	49	64	67																		
69 / 53	.4	1.1	1.1	1.1	.6	.2												37	37	65	87																		
68 / 51	.7	1.1	2.1	.1														33	33	100	85																		
67 / 49	.7	1.2	1.1	.1	.2													29	28	60	116																		
66 / 47	.4		.7															9	9	40	68																		
65 / 45		.4	.2															5	5	19	106																		
64 / 43																				10	48																		
63 / 41																				1	51																		
62 / 39																					23																		
61 / 37																					12																		
60 / 35																					2																		
59 / 33																					4																		
58 / 31																					5																		
57 / 29																					1																		
TOTAL	3.3	8.8	15.0	15.0	14.3	14.1	9.3	7.2	4.9	3.2	2.5	1.4	.6	.4	.1			809	809		809																		
																		809	809																				

Element (X)	$\Sigma X'$	ΣX	\bar{X}	σ_s	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	3378155	50143	62.0	18.287	809	= 0 F	= 32 F	= 67 F	= 73 F	= 80 F	= 93 F	Total
Dry Bulb	3422886	52134	64.4	8.847	809			34.9	19.4	4.3		90
Wet Bulb	2572695	45419	56.1	5.339	809			1.2				90
Dew Point	2034032	40272	49.8	6.242	809		.7					90

PSYCHROMETRIC SUMMARY

73-81

YEARS

مفت

PAGE ! 2100-2300

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B. W.B.	Dry Bulb	Wet Bulb	Dew Point														
1 / 74							.1											1	1																
7 / 77							.1			.1	.1							3	3																
2 / 75					.1	.1												2	2																
4 / 73				.1	.1	.1	.6	.2		.1	.1							12	12																
1 / 71			.1	.1	.1	.4	.2	.2										17	17																
1 / 69				.1	.9	.5	.5	.4										19	19																
6 / 67			.1	.4	.7	1.2	.4	.1		.1								25	25																
6 / 65			.6	.4	1.2	.7	.6											29	29																
4 / 63	.2	2.7	3.3	3.1	.6	.2	.6											32	32	13	4														
1 / 61	.2	1.6	2.5	2.2	.1	.2												56	56	47	8														
1 / 59	.9	4.2	3.5	3.2	.9	.6	.1											108	108	78	51														
5 / 57	1.5	3.7	2.5	1.2	.1	.4												76	76	104	59														
5 / 55	2.7	3.7	2.9	1.4	.4	.1												84	84	175	79														
4 / 53	1.9	3.7	2.5	1.1	.5													78	78	103	103														
2 / 51	1.1	3.3	1.2	.7														51	51	93	54														
5 / 49	2.1	4.1	2.2	.1		.1												68	68	92	105														
1 / 47	.9	1.6	1.4	.4														34	34	62	77														
4 / 45	1.4	3.2	.5	.2	.1													44	44	54	98														
4 / 43	1.1	1.1																17	17	40	50														
2 / 41	.9																	7	7	11	55														
4 / 39	.1																	1	1	6	17														
3 / 37		.1																1	1	1	12														
1 / 35																					7														
3 / 33																				1	3														
1 / 29																					1														
TOTAL	17.233	323	114.9	5.9	4.7	3.2	1.0	.2	.4	.2								878	878		808														

Element (X)	Σx^4	Σx^3	Σx^2	Σx	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	5299591	64369	77.714	5.65	808	≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F	
Dry Bulb	2657169	45977	56.9	7.126	808			8.0	2.0			92
Wet Bulb	2308289	42953	53.2	5.557	808				.7			92
Dew Point	2063557	40554	50.2	5.903	808			.3				92

USAFETAC
FORM
JUL 44
0-26-5 (OLA)
REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

73-61

YEARS

444

PAGE 1

ALL
HOURS

[illegible]

USAFETAC
FORM 44
0-26-5 (OL A)
REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

73-41

YEARS

July
MONTH

PAGE 2

ALL
HOURS 5.30 T.

[illegible]

PSYCHROMETRIC SUMMARY

73-61

YEARS

JUL
MON 7

PAGE 1 2002-0200
HOURS S. T.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B. W.B.	Dry Bulb	Wet Bulb	Dew Point														
1 / 69						.1		.1										2	7																
5 / 67			.1	.1	.4	.1	.1											7	7																
6 / 65	.1		1.1	.5	.4	.4												20	27	1	1														
4 / 63	.1	1.2	1.0	.7	.4	.1												22	29	4	2														
1 / 61	.2	2.5	.5	1.2	.6	.1												43	43	27	8														
1 / 59	2.3	5.2	3.2	1.8	.8	.4												112	112	56	44														
1 / 57	7.4	5.5	.7	.6	.1													86	86	93	69														
5 / 55	4.1	6.4	1.0	.8	.2													103	103	115	67														
4 / 53	7.1	7.6	1.0	.4	.1													133	133	149	148														
2 / 51	3.3	7.0	.7		.1													92	92	125	94														
1 / 49	3.4	7.5	.6															95	95	112	110														
1 / 47	1.8	2.4	.2															37	37	72	95														
1 / 45	1.9	2.9	.1															41	41	46	68														
14 / 43	.5	.5																8	8	23	37														
2 / 41	.5	1.3																15	15	9	27														
1 / 39	.4	.5																7	7	13	17														
3 / 37	.2																	2	2	5	7														
1 / 35																					4														
TOTAL	22.950	510.0	6.1	3.3	1.1	.1	.1											830		870	830														

Element (X)	Σ X'	Σ X	X	C _s	No. Obs.	Mean No. of Hours with Temperature					Total	
Rel. Hum.	6649353	73749	88.91	786	830	± 0 F	± 32 F	± 67 F	± 73 F	± 80 F	± 93 F	
Dry Bulb	2478512	45120	54.4	5569	830			1.0				93
Wet Bulb	2307861	43575	52.5	4933	830							93
Dew Point	2179519	42317	51.0	5153	830							93

REVISED EDITIONS OF THIS FORM ARE OBSOLETE

(OL A)

USAFETAC

PSYCHROMETRIC SUMMARY

73-61

YEARS

12 MONTHS

PAGE 1 0300-0500

Temp. (F)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	TOTAL D.B.-W.B.		Dry Bulb	Wet Bulb	Dew Point	
6 / 65					.8	.7	.5																										3	3				
4 / 63					.8	.7	.5																										17	17	4			
/ 61		.7	1.7	.4	.1			.1																									19	19	23	8		
/ 59	1.7	4.5	1.9	1.2																													75	75	23	32		
/ 57	2.9	4.5	.8	.6																													73	73	66	44		
5 / 55	4.6	4.9	.8	1.2																													96	96	92	75		
4 / 53	6.3	2.6	.5	.5																													82	82	114	115		
2 / 51	5.7	6.7	1.4																														115	115	93	83		
5 / 49	7.7	7.9	.4																														127	127	147	155		
/ 47	4.1	5.9	.5	.1																														88	88	93	113	
4 / 45	3.1	4.1	.1																															61	61	74	123	
4 / 43	1.8	1.6	.1																															29	29	47	48	
2 / 41	1.7	.5	.1																															19	19	25	48	
4 / 39	.8	.2																																9	9	12	12	
7 / 37	1.7	.4																																11	11	11	10	
4 / 35	.1	.5																																5	5	6	4	
3 / 33	.1	.1																																2	2	4	7	
2 / 31																																					4	
TOTAL	41.5	46.2	7.9	4.2	.1																													831	831			
																																			831	831		

Element (X)	Σx'	ΣX	X̄	s _x	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	7108045	76525	92.1	8.577	831	≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F	
Dry Bulb	2256781	43753	51.8	5.625	831							93
Wet Bulb	2148741	42023	50.6	5.347	831							93
Dew Point	2062131	41145	49.5	5.481	831							93

USAFETAC
FORM
0-26-5 (OL A)
REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

73-81

YEARS

JUL
MONTH

PAGE 1 0610-0800

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B. W.B.	Dry Bulb	Wet Bulb	Dew Point														
7 / 77										.1	.1							2	2																
6 / 75							.1	.1										2	2																
4 / 77					.1	.1		.1										3	3																
2 / 71					.4	.1		.1										5	5																
1 / 69				.1	.4	.1	.2											7	7																
1 / 67			.1	.2	1.3	.2	.1	.1										18	18																
6 / 65			1.2	.7	.4	.2	.1	.4										25	25	2															
4 / 63	.1	1.2	2.3	2.5	.6	.2	.1											59	59	12	1														
2 / 61	.8	2.4	1.0	.7	.4	.4												55	55	50	15														
1 / 59	3.1	6.5	3.4	1.4	.8	.1												123	128	85	77														
1 / 57	3.1	3.7	2.4	.4	.2													82	82	114	94														
5 / 55	1.6	5.2	2.9	1.1	.1													107	107	101	104														
4 / 53	1.7	5.9	2.4	.7														106	106	123	69														
2 / 51	2.9	6.4	1.2	.1														88	88	122	124														
5 / 47	3.5	4.3	.4	.1														69	69	179	121														
1 / 47	2.2	2.2																36	36	56	65														
4 / 45	1.2	1.4																22	22	32	92														
4 / 43	.6	.4																8	3	13	32														
2 / 41	.4	.2																5	5	6	15														
4 / 39	.4	.1																4	4	5	7														
3 / 37																				1	1														
1 / 35																					1														
TOTAL	25.64	70.18	28.2	8.2	4.7	1.7	.7	.7		.1	.1									831	831														

PSYCHROMETRIC SUMMARY

YEARS

~~SECRET~~ - 146

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B. W.B.	Dry Bulb	Wet Bulb	Dew Point														
81/87											.1	.1						2	2																
80/85											.1					.1		2	2																
79/83										.1	.1	.1						3	3																
78/81								.6	1.0	.4			.4					19	19																
77/79								.6	.5		1.0	.1						18	18																
76/77						.7	1.2	.5	.5	.1	.5							29	29																
67/75					.1	.5	1.1	.4	.8									24	24																
47/73				.2	.4	1.6	2.0	.7	.2	.1								44	44																
7/71				.2	.8	.8	1.6	.5	.5									37	37																
7/69			.1	1.3	2.2	1.6	1.1											52	52	1															
6/67		.2	.5	3.4	2.4	.4		.1										58	58	18															
6/65		1.3	1.3	1.7	1.4	.2	.4											53	53	32															
4/63		1.1	3.4	3.4	3.6	1.6	.5											112	112	65	7														
7/61	1.3	1.6	1.6	2.3	1.3	1.7												75	75	129	38														
7/59	1.2	3.4	3.7	3.6	1.7	.2												109	109	113	97														
7/57	1.4	1.6	2.2	1.6	.1	.4												60	60	136	99														
5/55	.5	2.9	1.7	.4	.2	.1												48	48	91	97														
4/53	.1	2.4	2.5	.5	.1													47	47	98	144														
7/51	1.1	2.2	.1															28	28	82	101														
5/49	.6	.6																12	12	43	112														
7/47	.1																	1	1	16	83														
4/45																					1	55													
4/43																						22													
7/41																						18													
4/39																						6													
3/37																						1													
TOTAL	.4	15.6	16.1	15.3	15.6	12.3	8.1	3.6	3.7	.7	1.8	.6		.1				831		831	831														

Element (X)	Σg'	Σg	Σ	Σ _n	No. Obs.	Mean No. of Hours with Temperature						Total
						≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F	
Rel. Hum.	4212132	57350	62.017	501	831							
Dry Bulb	3470918	53308	64.1	7.858	831			32.2	15.8	4.7		93
Wet Bulb	2769447	47817	57.5	4.655	831			2.1				93
Dew Point	2334888	43850	52.8	5.028	831							93

PSYCHROMETRIC SUMMARY

YEARS

- JUL
MONTH

PAGE 1 1222-1422

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL			TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥31	D.B.	W.B.	Dry Bulb	Wet Bulb	Dew Point															
4 / 93																.1			1		1																
4 / 91																.1			1		1																
4 / 89										.2					.2		.1	.2	7		7																
4 / 87									.1		.2	.2	.1	.1					7		7																
6 / 85										.4	.2	.4	.5						12		12																
4 / 83									.1	.2	1.0	.7	.4	.2					22		22																
4 / 81								.1	1.7	1.3	.2	.4							31		31																
4 / 79						.4	.1	.5	1.1	.6	.5	.2							28		28																
7 / 77					.2	1.4	1.7	1.4	1.1	.2									51		51																
6 / 75					1.1	1.4	1.3	2.1	.4	.2									54		54																
4 / 73				.2	.2	1.0	3.0	1.0	.6	.1	.2								53		53																
4 / 71				.1	.6	1.3	1.9	.5	.2	.1									40		40		3														
4 / 69				.1	1.1	1.1	2.1	.2	.1										39		39		5														
4 / 67			.1	.5	3.1	3.3	.6	.2											65		65		13														
6 / 65	.1		1.0	1.2	2.4	1.6	.6	.2	.2										61		61		64														
4 / 63	.1	1.1	1.4	3.0	2.8	3.4	.6	.1											104		104		87														
4 / 61	.5	.5	1.1	1.8	1.9	.7	.4												57		57		129														
4 / 59	1.4	1.9	1.3	1.4	3.1	.6													32		32		142														
4 / 57	.2	1.6	1.1	1.3	.4	.1													39		39		173														
5 / 55		1.1	1.7	.5	.1														28		28		95														
4 / 53	.4	2.2	1.0																29		29		76														
4 / 51	.5	1.6																	17		17		79														
5 / 49	.1																		1		1		31														
4 / 47																							119														
4 / 45																							99														
4 / 43																							71														
4 / 41																							22														
4 / 39																							25														
3 / 37																							2														
3 / 35																							6														
TOTAL	1.4	9.9	8.7	10.3	15.8	14.7	12.2	5.9	7.7	4.1																											

USAFETAC
FORM
28-24
0-26-5 (OL A)
REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

73-81

YEARS

MONTY

PAGE 1 1500-1700
HOURS

[illegible]

USAFETAC
FORM 0-26.5 (OL A)
REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE
JUL 64

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

STATION GRAFENWOHR AAF DL
STATION NAME

73-51

YEARS

JUL
MONTH

PAGE 1 1800-2000
HOURS L. S. Y.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL			TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	O.B.	W.B.	Dry Bulb	Wet Bulb	Dew Point															
1 / 91														.1																		1	1				
2 / 89																																	4	4			
3 / 87														.1																			2	2			
4 / 85														.1																			7	7			
5 / 83														.1	.4	.4	.1																8	6			
6 / 81													.4	.7	1.0	.4	.4	.1															24	24			
7 / 79								.1	.5	.7	.1	.4	.5	.1																			20	20			
8 / 77								.2	1.6	1.6	1.0	.6	.4	.1	.1																		46	46			
9 / 75								.1	1.2	1.7	1.2	.5	.2	.1																			42	42			
10 / 73						.4		1.3	1.3	.4	.2	.1	.1																				36	36			
11 / 71						.1	.7	1.7	2.1	.8	.5																						49	49			
12 / 69						.1	.6	2.1	1.8	1.2	.2	.2																					52	52			
13 / 67	.2	.1	.4	1.1	2.3	3.1	1.1																										68	68			
14 / 65	.2	.2	.6	.8	1.9	.8	1.1																										48	48			
15 / 63	.2	1.7	2.3	2.1	4.7	1.4	.4																										100	100			
16 / 61	.6	1.1	1.9	1.7	2.4	.8	.1																										72	72			
17 / 59	1.8	2.4	1.3	3.9	1.4	.6																											95	95			
18 / 57	.7	1.1	1.8	1.3	.1	.1																											43	43			
19 / 55	.6	2.8	2.1	.6	.1																												51	51			
20 / 53	.8	2.2	1.1	.2																													36	36			
21 / 51	1.1	1.2	.2																														20	20			
22 / 49		.6																															5	5			
23 / 47																																		7	75		
24 / 45																																			61		
25 / 43																																			24		
26 / 41																																			22		
27 / 39																																			4		
28 / 37																																			3		
29 / 35																																			2		
30 / 33																																			2		
TOTAL	6.3	13.4	11.8	12.7	15.2	13.4	11.0	5.1	3.9	2.3	1.9	1.8	.7	.2	.1	.2																	829	829			

Element (X)	Z _h	Z _x	X	X _a	No. Obs.	Mean No. of Hours with Temperature					Total
Rel. Hum.	3815114	53962	65.1	19.116	829	≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F
Dry Bulb	365341	54565	65.8	8.431	829			47.3	21.3	6.5	
Wet Bulb	2679134	48117	58.0	4.548	829			2.4			
Dew Point	2297679	43425	52.4	5.267	829			.2			

USAFETAC FORM 0-26-5 (OL A) REVISION PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE JUL 64

PSYCHROMETRIC SUMMARY

YEARS

MONTH

PAGE 1 2120-2300

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B.-W.B.	Dry Bulb	Wet Bulb	Dew Point														
- / 3											.1							1	1																
7 / 77									.1	.2								3	3																
6 / 75						.2			.2	.1								5	5																
4 / 73						.1	.2		.2	.1								6	6																
2 / 71				.1	.1	.4	.7	.1	.1		.1							14	14																
1 / 69				.6	.6	.2	.1	.4	.1									17	17																
1 / 67			.5	1.1	.8	1.0	.1	.1	.1									31	31																
6 / 65	.1	.1	1.1	.7	1.3	1.0	.2	.1	.1									40	40	5	1														
4 / 63	.4	1.6	2.7	3.0	1.6	.4												79	79	21	6														
3 / 61	.5	2.4	3.0	2.1	.6	.4	.1	.1										76	76	67	12														
2 / 59	2.9	6.9	5.1	1.6	.7	.2												144	144	94	89														
1 / 57	2.3	4.0	2.3	.6	.2													78	78	151	77														
5 / 55	2.7	6.0	2.2	.5														94	94	120	115														
4 / 53	2.9	5.1	1.1	.4														78	78	123	112														
3 / 51	2.3	6.3	1.1	.2														82	82	98	113														
5 / 49	1.3	2.9	.8	.1														43	43	76	112														
4 / 47	.4	1.9	.1	.1														21	21	41	70														
4 / 45	.4	1.2																13	13	19	66														
4 / 43	.1	.1																2	2	11	24														
2 / 41		.1																1	1	1	14														
0 / 39																				1	4														
3 / 37																					4														
3 / 35																					2														
2 / 31																					1														
TAL	10.238	619.911	1.1	6.0	3.9	1.6	.6	1.1	.5	.2								828	828	828															

Element (X)	ΣX^2	ΣX	\bar{X}	σ_X	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	5758788	67988	87.114	5.68	828	= 0 F	= 32 F	= 67 F	= 73 F	= 80 F	= 93 F	
Dry Bulb	2839941	48221	58.2	6.186	828			9.6	1.7	.1		93
Wet Bulb	2510571	45441	54.9	4.500	828							93
Dew Point	2286343	43317	52.3	4.943	828							93

PSYCHROMETRIC SUMMARY

73-81

YEARS

ALL
MONTH

PAGE 1

ALL
HOURS . . . S. T.

[illegible]

PSYCHROMETRIC SUMMARY

YEARS

JUL
MONY

PAGE 2

ALL
NDURS

[illegible]

PSYCHROMETRIC SUMMARY

73-81

YEARS

— AUG
MONTH

PAGE 1 1000-3200
HOURS: L. S. Y.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B. W.B.	Dry Bulb	Wet Bulb	Dew Point														
/ 71				.1														1	1																
/ 69			.1															1	1																
/ 67		.1	.1				.1											3	3	2															
/ 65	.1	.2	.8															12	12	2	3														
/ 63	.4	2.3	.5	.5	.2													30	30	8	7														
/ 61	1.7	2.5	1.2	.2	.1													48	48	41	23														
/ 59	3.6	5.4	2.0	.6	.4													100	100	60	60														
/ 57	3.6	6.2	1.7	.7	.1													123	123	93	62														
/ 55	4.3	5.4	1.9	.8														104	104	106	94														
/ 53	5.1	7.8	2.6	.1														130	130	116	121														
/ 51	2.5	7.0	.4															83	83	114	80														
/ 49	1.7	5.7	1.8															77	77	98	109														
/ 47	1.2	2.2	1.3															39	39	56	77														
/ 45	1.4	3.9	.4															48	48	45	66														
/ 43	.5	1.8	.1															20	20	47	34														
/ 41	.5	1.7	.1															19	19	18	52														
/ 39	.5	.6																9	9	15	22														
/ 37	.4	.4																6	6	6	11														
/ 35	.2	.2																4	4	4	9														
/ 33	.1																	1	1	2	2														
/ 31	.1																	1	1	2	2														
/ 29																					1														
TOTAL	27.653	315.1	3.1	.6	.1														837		837														

JSAFETAC FORMS 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

73-51

YEARS

... ALL
MONTA

PAGE 1 0300-1500
HOURS

[illegible]

USAFETAC FORM 0-26.5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

YEARS

ALL
MONTH

PAGE 1 7600-0842
HOURS 5.5.1

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	+31	D.B. W.B.	Dry Bulb	Wet Bulb	Dew Point														
1 / 71					.1													1	1																
2 / 69			.1	.1	.1	.2												5	5	1															
3 / 67			.1	.4	.2	.5												17	10	1	1														
4 / 65	.2	.4	.6	.1	.2	.1												14	14	5	2														
5 / 63	1.1	3.1	1.6	1.4	.2	.1	.1											64	64	21	16														
6 / 61	1.2	2.2	1.1	.7	.1	.1												43	43	52	20														
7 / 59	2.5	6.6	3.2	1.0	.5													115	115	49	65														
8 / 57	3.6	3.3	1.8	.6	.2													80	80	111	69														
9 / 55	4.3	6.8	3.1	.6	.1													125	125	92	100														
10 / 53	3.2	4.3	2.2	.1	.1													83	63	116	88														
11 / 51	3.2	4.4	1.4	.1														77	77	100	95														
12 / 49	3.3	4.5	1.2															71	71	89	92														
13 / 47	1.9	2.5	.1															38	38	64	79														
14 / 45	2.7	3.9	.2															52	52	46	90														
15 / 43	.7	1.1	.1															16	16	40	35														
16 / 41	.8	1.7	.1															22	22	19	44														
17 / 39	.4	.6																8	8	10	15														
18 / 37	.5																	4	4	10	14														
19 / 35	.5	.1																5	5	4	5														
20 / 33		.1																1	1	2															
21 / 31	.2																	2	2	2	5														
TOTAL	25.2	45.0	17.0	5.0	2.4	.4	.1												836	836	826														

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1 6870 GRAFENWOHR AAF DL
STATION STATION NAME

73-81

YEARS

AUG
MONTH

PAGE 1 0900-1100
HOURS (L.S.T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B. W.B. Dry Bulb	Wet Bulb Dew Point																
4 / 83								.1											1	1															
4 / 81								.4									.2			6	6														
4 / 79				.1	.2	.2	.2	.5									.1			12	12														
7 / 77				.1	.4	.7	1.0	.8	.5											29	29														
6 / 75				.5	.4	.9	.8	.5	.1											26	26														
74 / 73				1.0	.4	1.8	1.1	1.0	.2											45	45														
7 / 71			.1	.6	1.6	1.7	2.0	1.0												58	58	7	1												
7 / 69			.7	1.4	1.3	2.5	1.6	.1												64	64	9	1												
6 / 67			1.2	1.8	2.9	2.3	1.1	.2												79	79	24	5												
6 / 65		.6	2.4	1.4	2.6	1.3	.6	.2												77	77	46	12												
4 / 63	.4	1.9	3.2	3.5	2.9	1.6	.7													117	117	66	32												
7 / 61	.4	1.9	2.4	1.9	.8	1.8	.2													79	79	113	45												
7 / 59	1.1	3.7	2.9	2.2	1.6	.4	.5													102	103	139	97												
7 / 57	.6	1.6	1.4	2.2	.2	.2														52	52	132	112												
5 / 55	.6	1.1	1.2	.6	.5															33	33	94	89												
4 / 53	.8	1.1	1.2	.1																25	25	67	97												
42 / 51	.7	.5	.6	.2																17	17	66	84												
5 / 49	.4	.6	.5																	12	12	28	83												
4 / 47		.1																		1	1	23	67												
4 / 45	.1																			1	1	4	60												
44 / 43																							20												
42 / 41																							17												
4 / 39																							5												
3 / 37																							3												
TOTAL		13.0	17.6	17.6	15.6	15.3	10.3	4.3	.8	.4		.1								836	837		836												

Element (X)	Σx^2	Σx	\bar{x}	s^2	No. Obs.	Mean No. of Hours with Temperature					Total
Rel. Hum.	4231594	58152	69.4	15.494	836	≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F
Dry Bulb	3543476	54156	64.7	6.869	836			35.6	13.2	1.1	93
Wet Bulb	2867655	48785	58.4	4.990	836			4.6	.1		93
Dew Point	2448681	44983	53.8	5.818	836			.8			93

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AF WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1 0472 SPAFENWOHR AAF DL
STATION STATION NAME

73-81
YEARS

AUG
MONTH

PAGE 1 1200-1400
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B.-W.B.	Dry Bulb	Wet Bulb	Dew Point														
1 / 89								.1											1	1															
6 / 87								.1	.2										3	3															
6 / 85							.1												1	1															
4 / 83							.1	.6	.6	.2	.7	.1	.1						21	21															
1 / 81						.7		1.2	1.2	1.6	1.0	.8	.4						53	53															
1 / 79						.6	.7	1.1	1.1	1.1	.5	.1							34	34															
7 / 77			.1	.1	1.3	1.1	1.3	1.9	2.6	1.8	.2								76	76															
4 / 75			.1	.2	.5	.9	1.4	1.9	1.6	.6	.5								71	71	3														
4 / 73			.4	.7	.4	1.7	2.2	2.0	.5	.2									67	67	4														
1 / 71			.7	1.2	1.6	3.7	1.8	1.0											83	83	12	1													
1 / 69			.1	1.3	1.3	2.6	2.2	.5	.2										69	69	34	6													
1 / 67		.1	.6	.6	3.1	1.9	.6	.6	.2										65	65	47	14													
6 / 65		.5	.5	1.6	2.8	1.7	.7	1.7	.2										74	74	52	14													
4 / 63		.6	.8	1.3	1.9	1.7	1.1	.1											63	63	103	46													
1 / 61		.6	.6	1.1	.8	.8	.1												34	34	135	28													
1 / 59	.5	2.5	1.4	1.2	.6	.1													53	53	143	76													
1 / 57	.1	.7	.6	1.3	.1	.7													30	30	103	84													
5 / 55	.1	1.1	.1	.5	.1														16	16	77	92													
4 / 53	.4	1.0	.1	.6															17	17	55	86													
2 / 51	.1	.2		.1															4	4	44	97													
5 / 49		.1																	1	1	12	89													
1 / 47																					12	63													
4 / 45																						64													
4 / 43																						27													
2 / 41																						32													
1 / 39																						11													
3 / 37																						8													
TOTAL	1.2	7.4	5.3	12.3	13.2	15.8	15.6	12.8	9.4	4.8	1.8	.5							836	836		836													

Element (X)	ΣX^2	ΣX	\bar{X}	σ^2	No. Obs.	Mean No. of Hours with Temperature					Total
Rel. Hum.	3031773	48433	57.9	16.446	836	$\leq 0 F$	$\leq 32 F$	$\leq 67 F$	$\leq 73 F$	$\leq 80 F$	$\leq 93 F$
Dry Bulb	4120206	58332	69.8	7.745	836			60.5	36.4	17.6	93
Wet Bulb	3038040	50206	60.1	5.239	836			11.1	.8		93
Dew Point	2405783	44507	53.2	6.595	836			2.3			93

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1 6870 GRAFENWOHR AAF DL
STATION STATION NAME

73-81

YEARS

AUG
MONTH

PAGE 1 1500-1700
HOURS (L.S.T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																																	TOTAL D.B./W.B. Dry Bulb	TOTAL Wet Bulb Dew Point	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31																			
1 / 89								.1		.4								4		4																
2 / 87							.1											2		2																
6 / 85							.2		.4	.7		.2						13		13																
4 / 83							.6	.2	.1	.6	1.0	.8	.5	.1				33		33																
1 / 81							.1	.7	1.0	1.6	2.2	1.1	.1					56		56																
1 / 79						.1	.4	.2	.8	1.1	1.2	.5		.1				37		37																
7 / 77				.1	.2	1.2	2.2	2.3	1.9	2.3	1.0	.5	.1					98		98																
1 / 75				.4	.6	.8	1.3	1.0	1.6	.7	.6	.4						61		61																
4 / 73			.1	1.1	.4	1.0	1.3	2.3	1.0	.6								68		68																
1 / 71			.4	.6	.8	.7	2.0	1.3	.5	.1								54		54																
1 / 69			.7	.7	1.0	2.2	1.9	.6										59		59																
5 / 67		.1	1.2	1.1	2.5	1.8	1.1	1.0	.1									72		72																
6 / 65			1.4	.7	1.8	2.3	.7	.8	.1									66		66																
4 / 63	.2	1.2	1.2	.7	1.2	1.7	1.2	.1										61		61																
1 / 61		1.4	.6	.8	.7	.6	.1											36		36																
1 / 59	.7	1.8	1.4	1.2	.6	.1	.1											50		50																
1 / 57	.2	1.4	.6	.6	.4	.1												28		28																
5 / 55	.4	1.2	.1	.8	.1													22		22																
4 / 53	.5	.5		.2														10		10																
2 / 51		.2	.1															3		3																
5 / 49		.2																2		2																
1 / 47																																				
4 / 45																																				
4 / 43																																				
2 / 41																																				
6 / 39																																				
3 / 37																																				
1 / 35																																				
2 / 31																																				
TOTAL	2.7	8.1	7.7	9.1	10.2	13.8	13.8	11.7	9.1	8.4	4.2	1.6	.4					835		835																

Element (X)	Z _g	Z _x	X	σ _x	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	30014.2	47578	57.0	18.662	835	≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F	
Dry Bulb	42116.34	58902	70.5	8.239	835			62.0	41.4	14.2		93
Wet Bulb	30577.64	50342	62.3	5.212	835			11.2	1.0			93
Dew Point	23946.93	44335	53.1	6.985	835			.4	1.7	.1		93

USAFETAC FORM 0-26-5 (O.L.A.) REVISION PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE JUL 64

PSYCHROMETRIC SUMMARY

73-21

YEARS

AU

PAGE 1 187-4300

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B. W.B.	Dry Bulb	Wet Bulb	Deh	Po													
1 / 89										.1								1	1																
6 / 85							.1		.4		.1							5	5																
4 / 83								.3		.1	.2	.1						6	6																
1 / 81					.1	.1	.2	.7	.4	.2	.2							17	17																
1 / 79					.2	.2	.1	.4	.7	.6	.2							21	21																
7 / 77				.2	.1	.6	1.8	1.0	1.1	1.0	.1	.1						52	52																
1 / 75				.4	.4	1.1	1.3	.4	1.0	.1	.1							36	36			1													
4 / 73				.5	.4	1.2	1.1	.7	.7	.1	.4							42	42			2													
1 / 71				.4	1.1	1.7	1.6	1.7	.5	.6	.4							59	59			8													
1 / 69			.1	.6	1.2	1.2	1.2	1.7	.5	.1								49	49	12		2													
4 / 67				1.1	1.1	2.5	2.0	.6	.4	.1								65	65	76		5													
6 / 65			.8	1.2	1.7	1.8	2.3	.7	.7									77	77	57		11													
4 / 63		.5	2.6	3.8	2.9	1.6	1.6	1.2	.2									120	120	95		4													
1 / 61		.4	1.8	2.7	1.3	.5	.5	.5										58	58	124		41													
1 / 59	1.2	3.7	2.2	2.2	1.4	.6	.2											96	96	120	106														
1 / 57	.4	2.4	1.4	.4	.1	.1												42	40	112		94													
5 / 55	.7	1.8	1.7	.4	.1	.1												34	34	94		97													
4 / 53	1.1	1.2	.7	.1	.1													27	27	89		92													
2 / 51	.2	.8	.5															13	13	47		71													
5 / 49	.4	1.2																13	13	29		84													
1 / 47		.6																5	5	16		57													
4 / 45		.2																2	2	5		65													
4 / 43																				2		17													
12 / 41																						29													
4 / 39																						6													
3 / 37																						8													
1 / 35																						c													
1 / 33	4.5	17.3	14.9	13.3	11.5	13.3	10.3	5.4	4.9	2.8	1.4	.2								836		836													

Element (X)	$\Sigma X'$	ΣX	\bar{X}	σ_A	No. Obs.	Mean No. of Hours with Temperature						
Rel. Hum.	410627	56441	67.5	18.640	836	$\leq 0^\circ F$	$\leq 32^\circ F$	$\leq 67^\circ F$	$\leq 73^\circ F$	$\leq 80^\circ F$	$\leq 93^\circ F$	Total
Dry Bulb	3669396	54997	65.8	7.914	836			39.0	19.8	4.4		93
Wet Bulb	2899968	4946	58.7	5.198	836			5.7	.3			93
Dew Point	2433323	44789	53.6	6.356	836			1.0				93

USAFETAC FORM 0-26-5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

STATION 137 GRAFENWOHR AAF DL STATION NAME 73-81 YEARS AUG MONTH

PAGE 1 2100-2300 HOURS

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL D.B. W.B. Dry Bulb		TOTAL Wet Bulb Dew Point																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

Element (X)	Σx^2	Σx	\bar{x}	σ_x	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	5981334	69958	83.7	12.324	836	$\leq 0 F$	$\leq 32 F$	$\geq 67 F$	$\geq 73 F$	$\geq 80 F$	$\geq 93 F$	
Dry Bulb	2915777	48241	57.7	6.196	836			5.7	.8			93
Wet Bulb	2534962	45809	54.8	5.519	836			1.0				93
Dew Point	2338354	43930	52.5	5.987	836			.3				93

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1 6277 GRAFENWOHR AAF DL 73-81 AUG
STATION STATION NAME YEARS MONTH

PAGE 1 ALL
HOURS U.S.T.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B. W.B.	Dry Bulb	Wet Bulb	Dew Point														
89																																6	6		
87																																5	5		
85																																19	19		
83																																61	61		
81																																132	132		
79																																174	174		
77																																253	253		
75																																194	194		
73																																229	229		
71																																266	266		
69																																266	266		
67																																329	329		
65																																358	358		
63																																553	553		
61																																411	411		
59																																747	747		
57																																513	513		
55																																513	513		
53																																449	449		
51																																325	325		
49																																320	320		
47																																193	193		
45																																209	209		
43																																69	69		
41																																92	92		
39																																35	35		
37																																27	27		
35																																17	17		
33																																5	5		
31																																9	9		
29																																			
TOTAL	15.6	30.2	13.0	8.8	7.7	7.7	6.4	4.3	3.0	2.0	.9	.3	.0																			6689	6689		

Element (X)	Z _g	Z _x	X	s _x	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	41119550	507722	75.9	19.646	6689	≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F	
Dry Bulb	25535997	417845	61.7	10.026	6689		1.0	20.1	111.5	30.1		744
Wet Bulb	21168351	373621	55.9	6.690	6689		1.2	34.0	2.2			744
Dew Point	18475668	348832	52.2	6.517	6689		2.7	6.2	.1			744

USAFETAC FORM 0-26-5 (OL A) REVISOR PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1 SEP 73 GRAFENWOHR AAF DL
STATION STATION NAME

73-81

YEARS

SEP
MONTH

PAGE 1

0000-0240
HOURS L. S. Y.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	D.B. W.B. Dry Bulb	Wet Bulb Dew Point		
67 / 65				.1						.1																							2	2		
66 / 63			.1	.2	.6	.1																										9	9	3	3	
65 / 61				.9	.6	.2																										14	14	2	1	
64 / 59	1.5	1.6	.6	.1																												31	31	24	16	
63 / 57	2.2	3.9	1.3	.2																												59	59	43	27	
62 / 55	2.2	4.5	1.1	.1																												64	64	55	42	
61 / 53	4.1	6.1	1.5																													94	94	90	84	
60 / 51	2.6	5.2	1.5	.1																												76	76	81	68	
59 / 49	2.4	7.7	1.4																													92	92	91	82	
58 / 47	2.7	4.2	.2																													58	58	90	82	
57 / 45	5.1	6.5	.4																													96	96	95	121	
56 / 43	4.4	2.5	.1																													56	56	85	77	
55 / 41	4.5	4.5																														72	72	60	75	
54 / 39	1.7	2.2																														32	32	40	41	
53 / 37	1.0	1.0																														16	16	30	29	
52 / 35	.6	.9																														12	12	8	25	
51 / 33	.7	.4																														9	9	12	10	
50 / 31	.7	.2																														8	8	11	10	
49 / 29	.5																															4	4	4	8	
48 / 27																																			1	
T T4L	37.2	52.6	9.1	1.0	.1																												874		804	
																																	804		804	

Element (X)	$\Sigma x'$	Σx	\bar{x}	s_x	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	691324.7	74318	92.4	7.371	804	≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F	
Dry Bulb	1963493	39351	48.9	6.833	804		1.3					90
Wet Bulb	1870816	38430	47.8	6.499	804		1.7					90
Dew Point	1796030	37640	46.8	6.495	804		2.1					90

USAFETAC FORM 0-26-5 (O.L.A.) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1457 GRAFENWOHR AAF DL 73-81 SEP
STATION STATION NAME YEARS MONTH

PAGE 1 0300-0500
HOURS (L.S.T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B.-W.B.	Dry Bulb	Wet Bulb	Dew Point														
4 / 63			.4																3	3															
4 / 61		.4	.1																4	4															
4 / 59		1.1	1.9																23	23	12	9													
4 / 57		2.2	1.4																29	29	33	26													
5 / 55		3.6	4.1	.6															67	67	40	44													
4 / 53		5.7	4.1	.5	.2														79	79	81	56													
4 / 51		4.1	4.0	.6															70	70	72	69													
5 / 49		2.9	5.6	1.4															79	79	76	56													
4 / 47		4.2	5.5	.7															84	84	87	86													
4 / 45		3.7	7.3	.1															90	90	82	104													
4 / 43		4.7	3.4																59	59	81	70													
2 / 41		6.5	3.1																77	77	79	111													
4 / 39		7.2	1.6																39	39	44	48													
3 / 37		3.7	.7	.1															31	31	37	41													
2 / 35		2.1	1.2																27	27	25	21													
3 / 33		1.1	1.0																17	17	19	19													
2 / 31		1.4	.4																14	14	20	19													
3 / 29		.9	.2																9	9	9	11													
2 / 27		.4																	3	3	4	8													
2 / 25																						3													
TOTAL	40.6	45.6	4.4	.4															804		804	804													

Element (X)	$\Sigma X'$	ΣX	\bar{X}	σ_s	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	7154721	75639	94.1	6.945	804	$\leq 0 F$	$\leq 32 F$	$\leq 67 F$	$\leq 73 F$	$\leq 80 F$	$\leq 93 F$	
Dry Bulb	1816712	37794	47.0	7.068	804		2.9					90
Wet Bulb	1749621	37793	46.1	6.938	804		3.7					90
Dew Point	1694153	36475	45.4	7.004	804		4.6					90

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1 1977 GRAFENWOHR AAF DL
STATION STATION NAME

73-81

YEARS

SEP
MONTH

PAGE 1 0600-0800
HOURS LT. S. Y.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL D.B.-W.B.		TOTAL Dry Bulb Wet Bulb Dew Point																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

Element (X)	Σx^1	Σx	\bar{x}	s^2	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	6976208	74684	92.8	7.677	805	$\pm 0 F$	$\pm 32 F$	$\pm 67 F$	$\pm 73 F$	$\pm 80 F$	$\pm 93 F$	
Dry Bulb	1926677	38973	48.4	7.040	805		2.2					93
Wet Bulb	1838422	38090	47.3	6.703	805		2.3					90
Dew Point	1767042	37328	46.4	6.739	805		2.9					90

USAFETAC FORM 0-26-5 (OL A) 10-64
REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
ATMOSPHERIC SERVICE/MAC

PSYCHROMETRIC SUMMARY

STATION 1-577 DRAFFEN AAF DL STATION NAME

73-81

YEARS

SEP MONTH

PAGE 1 1200-1400 HOURS

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL D.B.-W.B. Dry Bulb			TOTAL Wet Bulb Dew Point		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31																				
6 / 85											.1	.1						2	2																		
5 / 82											.5	.1						5	5																		
4 / 81									.1	.1	.2	.4	.1					8	8																		
3 / 79					.1				.6	.2	.1							9	9																		
7 / 77				.1		.7	.7	1.1	.4	.1								26	26																		
6 / 75				.1		1.1	.6	.6	.4	.1								24	24																		
4 / 73				.2	.1	1.1	.9	.6	.4	.1								28	28																		
3 / 71			.2	.5	1.4	.9	2.5	1.0	.4									55	55	2																	
1 / 69			.2	.7	1.5	1.7	1.2	.2	.1	.1								48	48	3	1																
6 / 67			.2	.7	2.1	2.2	1.1	.7	.1									57	57	11	3																
6 / 65		.1	.6	.5	2.1	2.2	1.6		.1									59	59	27	1																
4 / 63	1.0	1.6	3.4	2.7	3.9	1.4	.2											108	108	56	10																
1 / 61	.4	1.9	2.0	1.9	1.1	.1												59	59	74	21																
1 / 59	.4	1.4	2.6	2.4	3.7	1.5	.9											103	103	86	55																
5 / 57	1.1	1.5	1.9	1.4	1.2													57	57	102	50																
5 / 55	.1	.5	.4	2.4	1.4	.7												44	44	102	68																
4 / 53	.9	1.2	1.4	.5														32	32	85	90																
2 / 51	1.5	1.7	.5	.1	.2													27	27	62	68																
5 / 49	.4	.9	.7	.9														23	23	73	77																
1 / 47	.5	.5	.1															9	9	63	74																
4 / 45	.5	1.2	.2															16	16	28	120																
4 / 43	.5	.1																5	5	18	71																
2 / 41																				2	43																
4 / 39																					30																
3 / 37																					15																
1 / 35																					5																
2 / 31																					2																
TOTAL	1.9	9.6	13.1	17.8	18.3	18.5	11.1	5.3	2.2	1.0	1.0	.2						804	804	804	804																

Element (X)	$\Sigma x'$	Σx	\bar{x}	σ_x	No. Obs.	Mean No. of Hours with Temperature					Total
Rel. Hum.	3475987	51408	63.9	15.339	804	$\leq 0 F$	$\leq 32 F$	$\leq 67 F$	$\leq 73 F$	$\leq 80 F$	$\leq 93 F$
Dry Bulb	3257577	50754	63.1	8.172	804			29.3	11.4	2.0	90
Wet Bulb	2519495	44761	55.7	5.854	804			1.8			90
Dew Point	2037265	40143	49.9	6.407	804			.2	.4		90

PSYCHROMETRIC SUMMARY

73-81

YEARS

SEP
MONTH

PAGE 1 1500-1700
HOURS (G.S.T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B.-W.B.	Dry Bulb	Wet Bulb	Dew Point														
8 / 87										.1		.2						3	3																
6 / 85									.1	.1		.1						3	3																
4 / 83											.6	.1	.5					10	10																
2 / 81					.1				.1	.1	.4		.1					7	7																
0 / 79				.1	.2			.2	.4		.1							9	9																
7 / 77			.1			.6	1.1	1.7	.1	.7								36	36																
6 / 75				.2	.7	.7	.6	.4	.5									26	26																
4 / 73		.1	.1	.5	1.2	1.1	1.2	.4	.2	.2								42	42	2															
2 / 71			.4	1.1	2.2	1.9	1.0		.2									55	55	3															
0 / 69			.4	.5	1.2	2.7	1.5	.6	.2									52	52	5	3														
8 / 67			.9	.4	1.6	1.1	1.7	.4										43	43	9	3														
6 / 65	.1	.4	.4	.2	2.5	3.0	1.4	.9										71	71	42	1														
4 / 63			2.6	2.0	2.1	4.7	.9	.1										94	94	68	18														
2 / 61		.4	1.5	.6	1.2	1.7												44	44	63	17														
0 / 59		2.4	2.7	2.0	3.9	1.4	1.5											105	105	99	42														
8 / 57	.1	1.5	1.2	1.7	1.4	1.1	.1											58	58	91	67														
6 / 55		.6	.6	1.5	1.2	.5												36	36	107	64														
4 / 53		.2	.9	.6	1.1													23	23	74	78														
2 / 51	.2	2.0	.9	.5	.2	.1												32	32	69	76														
0 / 49	.9	1.0	.6	.4	.1													24	24	66	74														
8 / 47		.5	.4	.2														9	9	59	79														
6 / 45		1.5	.9															19	19	21	110														
4 / 43	.4																	3	3	22	45														
2 / 41																				4	66														
0 / 39																					35														
8 / 37																					19														
6 / 35																					5														
4 / 33																					1														
2 / 31																					1														
TOTAL	1.7	10.4	13.3	11.4	18.9	19.8	11.2	6.8	1.7	2.1	1.4	.5	.6					804	804	824	824														
																		804	804																

Element (X)	$\Sigma x'$	Σx	\bar{x}	s_x	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	3370234	50388	62.7	16.288	804	$\leq 0^\circ F$	$\leq 32^\circ F$	$\leq 67^\circ F$	$\leq 73^\circ F$	$\leq 80^\circ F$	$\leq 93^\circ F$	
Dry Bulb	3336040	51319	63.8	8.680	804			32.7	15.2	2.4		90
Wet Bulb	2544411	44969	55.9	6.033	804			2.1	.2			90
Dew Point	2036155	40101	49.9	6.700	804			.1	.7			90

USAFETAC
FORM
RE 44
0-26-5 (OL A)
REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

YEARS

SEP

PAGE 1 ~~1000-2000~~

798 798

USAFETAC

Element (X)	ΣX^1	ΣX	\bar{X}	σ_A	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.						$\pm 0 F$	$\pm 32 F$	$\pm 67 F$	$\pm 73 F$	$\pm 80 F$	$\pm 93 F$	
Dry Bulb	4846694	61106	76.614	5.00	798							
Wet Bulb	2724922	46248	57.9	7.754	799			11.2	3.3	.8		90
Dew Point	2310241	42673	53.5	5.959	798			46				90
	2026478	39912	50.0	6.164	798							90

PSYCHROMETRIC SUMMARY

73-91

SEE
MONTH

PAGE 1 2100-2300
HOURS 5 7

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	+31	D.B. W.B. Dry Bulb	Wet Bulb Dew Point																
1 / 71							.1											1	1																
2 / 69			.1	.3														3	3																
3 / 67			.1	.1		.3												4	4																
4 / 65			.4	.1	.5	.1												9	9	1															
5 / 63	.1	.6	.5	.6	.4	.1												19	19	5	2														
6 / 61	.2	1.6	.6	1.7	.1													33	33	18	11														
7 / 59	1.4	4.3	3.0	.8	.6													87	87	33	24														
8 / 57	1.9	3.8	.6	.3														52	52	74	39														
9 / 55	2.1	4.1	2.5	.5	.1													74	74	70	53														
10 / 53	1.5	7.1	2.1	.5														92	92	68	66														
11 / 51	1.8	6.1	1.8	.5														81	81	103	68														
12 / 49	2.3	6.2	1.3	.5	.1													81	81	94	97														
13 / 47	2.9	5.4	.4	.1														77	70	86	95														
14 / 45	2.6	8.1	.9	.1														93	93	73	112														
15 / 43	2.1	2.8	.3															40	40	83	66														
16 / 41	2.3	2.5																38	38	45	83														
17 / 39	.3	1.1																11	11	17	24														
18 / 37	.9	.4																10	10	16	23														
19 / 35	.4																	3	3	6	12														
20 / 33	.1	.8																7	7	5	4														
21 / 31																				2	5														
22 / 29																					2														
TOTAL	23.7	54.6	14.5	5.4	1.9	.6												799	799	799	799														

Element (X)	Z_X'	Z_X	\bar{X}	σ_X	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	6317226	70634	88.4	9.562	799	≤ 0 F	≥ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Dry Bulb	2166801	41265	51.6	6.691	799			.9				90
Wet Bulb	209416	39772	49.8	6.798	799							90
Dew Point	1887463	38524	48.2	6.133	799			.8				90

USAFETAC FORM 0-26.5 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE JUL 84

PSYCHROMETRIC SUMMARY

73-81

YEARS

~~SEE~~

PAGE 1

ALL

[illegible]

PSYCHROMETRIC SUMMARY

YEARS

QCT
MONTH

PAGE 1 ~~0000-0200~~
HOURS (L, S, T)

[illegible]

PSYCHROMETRIC SUMMARY

73-81

YEARS

CCY
MONTN

PAGE 1 0300-0500
HOURS U S T

[illegible]

PSYCHROMETRIC SUMMARY

YEARS

CC
MONTH

PAGE 1 0600-0800
HOURS (L.S.T.)

[illegible]

PSYCHROMETRIC SUMMARY

YEARS

OCI
MONTH

PAGE 1 ~~0900-1100~~
HOURS 10:30-11:00

[illegible]

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1 6872 GRAFENWOHR AAF DL 73-81 YEARS OCT MONTH

PAGE 1 1200-1400
HOURS (L.S.T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																				TOTAL D.B./W.B.	TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	Dry Bulb	Wet Bulb	Dew Point					
4 / 73							.1	.2											3	3					
5 / 71						.1	.4												4	4					
6 / 69				.2		.2	.6												9	9					
6 / 67					.6	.2		.2											9	9					
6 / 65					.6	.5	.1	.1											11	11					
4 / 63			.1	1.1	1.6	1.1	.6												37	37	2				
5 / 61			.5	1.0	.8	.7	.1												26	26	8				
5 / 59		.2	1.6	1.9	1.2	.2	.4	.1											47	47	16				
5 / 57		1.2	.5	2.3	.5	1.1	.1												47	47	28				
5 / 55		.6	1.9	2.5	1.0	.7													56	56	45				
4 / 53	.7	1.8	1.3	1.7	1.1	.1		.2											58	58	52				
5 / 51	.4	1.9	2.2	1.1	.2	.4	.1												52	52	68				
5 / 49	.1	2.7	3.3	1.3	.4	.2	.4												71	71	59				
4 / 47	.1	3.1	4.8	1.8	1.1	.1													91	91	89				
4 / 45	1.4	5.3	3.7	2.9	1.2	.2	.2												125	125	128				
4 / 43	1.7	4.1	1.0	.7	.2														64	64	111				
2 / 41	2.0	4.3	1.6	1.1	.5														79	79	96				
4 / 39	2.0	1.0	.1	.1															27	27	65				
3 / 37	1.1	.2																	11	11	44				
2 / 35	1.1																		9	9	24				
3 / 33		.1																	1	1	16				
2 / 31																					1				
1 / 29																					13				
0 / 27																					12				
1 / 25																					6				
2 / 23																					8				
2 / 21																					1				
1 / 19																					1				
0 / 17																					2				
TOTAL	17.6	26.5	22.5	19.6	10.8	6.0	2.7	1.3												837	837	837			
																						837		837	
</																									

USAFETAC FORM 0-26-5 (O.L.A.) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

~~73-81~~

YEARS

~~SECRET~~

PAGE 1 ~~2150-2350~~

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																				TOTAL		TOTAL			
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point					
1 / 59	.2																	2	2	2	2					
1 / 57		.2																4	4							
5 / 55	.2	.7	1.2			.1												17	17	4	2					
4 / 53	.7	1.7	.7	.1														27	27	13	12					
2 / 51	1.1	2.9	.5															37	37	36	14					
5 / 49	2.2	3.1	1.3	.4														58	58	54	39					
4 / 47	2.5	2.8	1.1															53	53	58	55					
4 / 45	3.5	2.3	1.0															119	119	78	84					
4 / 43	2.8	5.2	.8															72	72	105	76					
2 / 41	9.1	7.4	.8															145	145	128	143					
4 / 39	3.3	4.3	1.7		.2													74	74	77	98					
3 / 37	5.4	1.2	1.4	.2														69	69	88	79					
1 / 35	3.1	1.7	.4	.4														46	46	49	57					
3 / 33	2.8	1.1	.1	.1														34	34	50	37					
2 / 31	3.6	1.7	.4															41	42	52	53					
1 / 29	2.3	.6																24	24	26	41					
1 / 27	1.7	.4																11	11	13	23					
2 / 25	.2	.1																3	3	3	4					
2 / 23																					10					
2 / 21																					6					
1 / 19																					1					
TOTAL	43.9	43.4	11.9	1.4	.4													836	836	537	836					

Element (X)	Σ x'	Σ x	\bar{x}	s _x	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	71.5783	76661	91.7	9.540	836	≥ 0 F	≥ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Dry Bulb	1522202	35268	42.1	6.575	837		8.9					93
Wet Bulb	1440470	34302	41.0	6.289	836		10.5					93
Dew Point	1360227	33263	39.8	6.634	836		15.4					93

PSYCHROMETRIC SUMMARY

OCT
MONTH

ALL
HOURS 'L. S. T.'

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point														
4 / 73								.1										6	6																
4 / 71							.1	.1										11	11																
4 / 69				.0	.0	.1	.1											15	15																
6 / 67				.0	.1	.2	.0	.1										26	26																
6 / 65				.0	.2	.2	.0	.0										33	33																
4 / 63			.7	.4	.4	.3	.1											82	82	3															
2 / 61		.0	.2	.4	.3	.2	.1											75	75	16															
2 / 59	.1	.2	.6	.7	.4	.1	.1	.0										145	145	45	7														
2 / 57		.6	.5	.7	.2	.3	.7											156	156	93	12														
5 / 55	.1	.6	1.7	.6	.4	.1												196	196	146	61														
4 / 53	.6	1.7	1.1	.7	.4	.0		.0										303	303	216	134														
2 / 51	.7	2.3	1.1	.5	.1	.1	.2											327	327	340	206														
5 / 49	1.3	3.1	1.9	.4	.1	.0	.0	.0										462	462	408	342														
6 / 47	1.4	3.2	1.8	.5	.2	.1												472	470	536	379														
4 / 45	3.6	7.1	2.2	.7	.3	.1	.7											936	936	735	805														
4 / 43	2.6	5.0	.9	.3	.1													595	595	814	625														
2 / 41	6.1	6.7	.9	.5	.1	.0												963	963	889	1085														
4 / 39	3.9	2.8	.6	.1	.1													493	493	688	824														
3 / 37	4.2	1.2	.6	.1														413	413	569	606														
2 / 35	3.2	1.3	.3	.1														329	329	421	470														
3 / 33	2.1	.9	.1	.0														214	214	276	290														
2 / 31	2.2	.6	.1	.0														190	191	240	310														
2 / 29	1.0	.6	.1	.0														114	114	115	190														
2 / 27	1.1	.1																83	83	100	178														
2 / 25	.3	.1																27	27	31	68														
2 / 23	.3	.1																18	18	21	61														
2 / 21	.1																	6	6	6	28														
2 / 19	.1																	2	2	2	18														
2 / 17																					10														
2 / 15																					1														
TOTAL	34.7	38.2	14.1	7.0	3.4	1.7	.6	.3										6690	6691	6690															
																		6690		6690															
Element (X)	Σ x²	Σ x	Σ	Σ	Σ	No. Obs.	Mean No. of Hours with Temperature										Total																		
Rel. Hum.	51943871	582463	87.1	13.571	6690	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F																								
Dry Bulb	13698395	297807	44.5	8.141	6691		49.7	6.4	.7							744																			
Wet Bulb	12428417	284647	42.5	6.887	6690		57.3									744																			
Dew Point	11297228	271108	40.5	6.816	6690		96.1									744																			

PSYCHROMETRIC SUMMARY

73-91

YEARS

—F.O.V.
MONTH

PAGE 1 ~~0000-0200~~

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B.-W.B.	Dry Bulb	Wet Bulb	Dew Point														
5 / .5			.8															6	6	1															
4 / 53	.1	.3	.8															9	9	6	4														
2 / 51	.3	.1	.6															8	8	8	5														
5 / 49	.4	1.0	.6															16	16	11	8														
4 / 47	.4	1.1	.3															14	14	15	8														
4 / 45	.5	1.5	.3															18	18	16	25														
4 / 43	1.5	2.1	.1															30	30	31	23														
2 / 41	3.4	4.4	.8															68	68	48	47														
4 / 39	7.0	2.3	.5	.3														48	48	54	48														
3 / 37	6.5	3.7	.5															85	85	79	78														
1 / 35	6.4	5.8	.5															101	101	90	74														
3 / 33	5.8	4.7	.6															88	88	105	88														
2 / 31	8.4	4.3	.1															102	102	111	114														
1 / 29	4.5	3.0	.3															62	62	71	68														
2 / 27	5.1	1.3	.3															52	53	49	76														
2 / 25	2.9	1.6																36	36	34	34														
2 / 23	1.9	.4																18	18	32	29														
22 / 21	.9																	7	7	7	20														
1 / 19	.8	.1																7	7	6	12														
1 / 17	.8	.1																7	7	8	15														
1 / 15																					4														
1 / 13	.4																	3	3	3	5														
1 / 11	.1																	1	1	1	1														
1 / 9	.3																	2	2	2	1														
1 / 7	.5																	4	4	4	5														
1 / 5	.3																	2	2	2	2														
TOTAL	55.2	38.5	6.2	.3														794	795	794	794														

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

16872 GRAFENWHR AAF DL
STATION STATION NAME

73-81

YEARS

NOW
MONTH

PAGE 1

1980-1100
HOURS L. S. T.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL D.B. W.B. Dry Bulb			TOTAL Wet Bulb Dew Point		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31																				
1 / 59				.1			.1																										2	2			
1 / 57				.1		.1																											2	2			
5 / 55			.5																														4	4	1		
4 / 53				.3		.1																											3	3	5		
2 / 51			2.0	.1	.4																												20	20	6	6	
5 / 49				1.5	1.0	.1																											21	21	18	4	
1 / 47		.3	.5	.4																													9	9	19	19	
4 / 45		1.0	1.5	.8																													26	26	21	29	
4 / 43		1.0	2.5	1.1																													37	37	29	24	
2 / 41		3.4	9.0			.3																											101	101	71	55	
4 / 39		3.6	5.0	1.1	.3																												80	80	42	70	
3 / 37		4.0	3.1	1.1	.5																												70	70	73	61	
3 / 35		4.6	6.0	.9			.1																										93	93	76	77	
3 / 33		5.4	7.2	1.1	.1																												110	110	112	66	
2 / 31		6.4	4.3	.6																													90	90	142	111	
1 / 29		7.1	3.6																														46	46	50	87	
1 / 27		2.8	2.0																														38	38	37	66	
1 / 25		1.1	.4																														12	12	19	32	
2 / 23		1.9	.6																														20	20	20	34	
2 / 21			.3																														2	2	3	15	
1 / 19		.1	.1																														2	2	3	6	
1 / 17		.3																															2	2	3	2	
1 / 15		.3	.1																														3	3	3	5	
1 / 13			.3																														2	2	2	3	
1 / 11																																				2	
1 / 9		.1																															1	1	1	3	
1 / 5		.1																															1	1	1	1	
TOTAL	34.5	50.6	8.8	1.9	.3																												797	797		797	

Element (X)	ΣX^2	ΣX	\bar{X}	σ^2	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	6556280	71880	90.2	9.613	797	≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F	
Dry Bulb	1101597	29097	36.5	7.028	797		24.7					90
Wet Bulb	1031554	28180	35.4	6.648	797		32.1					90
Dew Point	948473	26921	33.8	7.006	797		41.4					90

USAFETAC FORM 0-26-3 (OL A) REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

73-81

YEARS

NOV
MONTH

PAGE 1 ~~1200-1466~~

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	+31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point														
1 / 61				.1														1	1																
1 / 59			.3	.1	.3													5	5																
1 / 57		.3	.3	.3														6	6																
5 / 55			.3	.2														9	9	5															
4 / 53		.5	.6	.4	.1	.1												14	14	3	4														
2 / 51		1.3	.8	1.2	.1													25	25	14	2														
5 / 49	.3	1.3	1.9	.6	.3													34	34	26	9														
1 / 47		1.1	1.7	.8	.4	.1												27	27	25	21														
4 / 45	.5	4.5	2.3	.9		.1												66	66	42	35														
4 / 43	1.	3.6	2.5	.5	.3	.4												66	66	71	5														
2 / 41	2.1	9.2	2.8	.8	.1													119	119	75	82														
1 / 39	1.3	4.1	1.8	.9	.1													65	65	87	62														
3 / 37	3.4	5.0	1.3	.4														80	80	92	96														
1 / 35	2.9	4.9	4.1		.1													96	96	99	75														
3 / 33	2.5	4.8	1.1															67	67	100	74														
2 / 31	3.5	3.4	.4															58	58	121	102														
1 / 29	1.	1.8	.1															23	23	27	57														
2 / 27	.9	1.8	.1															22	22	25	61														
1 / 25	.6																	5	5	11	30														
2 / 23	.5	.5																8	8	5	34														
2 / 21	.1																	1	1	4	7														
1 / 19																					3														
1 / 17																					1														
1 / 15																					4														
TOTAL	21.647	9.215	7.5	1.8	.9													797	797	797	797														

REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

0-26-5 (OL A)

USAFETAC FORM 100-10

PSYCHROMETRIC SUMMARY

YEARS

NOV
MONTH

PAGE 1 1500-1700
HOURS (L.S.T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																												TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B. W.B.	Dry Bulb	Wet Bulb	Dew Point											
1 / 59			.4	.1	.1													6	6													
2 / 57			.1	.3														3	3													
5 / 55			.1	.6	.1													7	7	3												
4 / 53		.8	.9	1.0		.1												22	22	4	1											
2 / 51		.6	.6	.8	.4													19	19	15	4											
5 / 49	.4	1.1	1.8	.4	.5													33	33	18	10											
1 / 47	.1	1.1	2.1	.4	.4													32	32	34	13											
4 / 45	1.1	3.4	2.0	.6														57	57	49	44											
4 / 43	.6	3.9	2.8	.3	.3	.1	.1											64	64	55	31											
2 / 41	2.3	8.4	2.5	.9		.1												113	113	87	87											
1 / 39	.9	4.4	1.5	.4														57	57	69	56											
2 / 37	5.2	3.3	1.3	.5														81	81	94	97											
1 / 35	3.1	5.9	1.8	.4														89	89	98	87											
3 / 33	3.1	5.9	1.4	.1														83	83	99	66											
2 / 31	3.1	4.2	.4															60	60	94	100											
1 / 29	1.1	1.6	.3															23	25	36	46											
2 / 27	.6	2.1	.5															26	26	16	74											
1 / 25	.4	.4																6	6	18	17											
2 / 23	.8	.4																9	9	8	32											
2 / 21	.3	.3																4	4	5	10											
1 / 19	.1																	1	1	3	10											
1 / 17																					5											
1 / 15																					2											
1 / 13																					3											
TOTAL	22.9	47.7	25.4	6.7	1.8	.5	.1											795	797		795											

Element (X)	Σ x'	Σ x	R	Σ x	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	563.775	67389	84.8	12.215	795	≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F	
Dry Bulb	1276379	31379	39.4	7.172	797		14.9					90
Wet Bulb	1149291	29789	37.5	6.455	795		20.4					90
Dew Point	1007650	27766	34.9	6.909	795		33.8					90

USAFETAC
FORM
MAY 64
0-26-5 (OL A)
REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

73-81

YEARS

NOV
MONTH

PAGE 1

HOURS 11.30 A.M.

[illegible]

PSYCHROMETRIC SUMMARY

YEARS

DEC
MONTH

PAGE 1 0000-0200
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																											TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point										
4 / 53			.4		.1													4	4												
2 / 51					.2													2	2	1											
5 / 49		.3	.1															3	3	3	1										
4 / 47	.7	.3	.3															9	5	6	9										
4 / 45	1.1	1.8																21	21	16	8										
4 / 43	.6	.7																9	9	19	16										
2 / 41	2.2	1.5	.3															29	29	21	24										
4 / 39	.7	2.2	.1															22	22	17	13										
3 / 37	2.1	1.1	.4															26	26	33	22										
5 / 35	5.0	5.3	.4															77	77	47	58										
3 / 33	6.6	5.9																89	89	106	62										
2 / 31	6.9	6.7																97	97	123	104										
2 / 29	5.2	3.8																64	65	78	77										
2 / 27	7.8	2.1																71	71	64	96										
1 / 25	3.2	1.3																32	32	36	38										
2 / 23	2.7	1.3																28	28	26	33										
2 / 21	2.5	.1																19	19	25	28										
2 / 19	2.5	.6																22	22	19	21										
1 / 17	3.1																	22	22	26	27										
1 / 15	1.4																	10	10	10	14										
1 / 13	1.7	.3																14	14	13	17										
1 / 11	.4	.4																6	6	6	9										
1 / 9	.8																	6	6	7	7										
1 / 7	1.8																	7	7	7	5										
1 / 5	.1	.4																4	4	3	4										
1 / 3	.3																	2	2	3	4										
1 / 1	.4																	3	3	3											
1 / -1	1.3																	9	9	9	13										
1 / -3	.4																	3	3	3	6										
1 / -5	.6																	4	4	4	2										
1 / -7																					3										
TOTAL	61.3	36.1	2.1		.4													714	715		714										
																		714		714											
Element (X)	Σ x'	Σ x	Σ	Σ	Σ	No. Obs.	Mean No. of Hours with Temperature																								
Rel. Hum.	6321201	66937	93.7	8.024	714	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	Total																			
Dry Bulb	698647	21197	29.6	9.918	715	2.1	55.1					93																			
Wet Bulb	669949	20765	29.1	9.625	714	2.1	58.0					93																			
Dew Point	628750	19980	28.0	9.883	714	3.1	65.3					93																			

PSYCHROMETRIC SUMMARY

73-81

YEARS

~~DEC~~

PAGE 1 0300-0500
HOLMES (U.S.T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																											TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point										
2 / 51			.1															1	1												
5 / 49	.1	.5		.1														6	6	3	1										
4 / 47	.1	.1	.1															3	3	5	3										
4 / 45	1.9	2.3	.1															32	32	16	18										
4 / 43	.7	.4																8	8	23	17										
2 / 41	2.5	.9																26	26	22	26										
4 / 39	1.3	2.0																25	25	17	19										
3 / 37	2.4	1.1																26	26	33	25										
1 / 35	2.7	3.9	.5															53	53	31	31										
3 / 33	6.6	4.9	.1															68	88	95	57										
2 / 31	7.3	5.4																94	94	112	98										
1 / 29	4.4	4.5																67	72	72	78										
2 / 27	13.8	1.3																114	114	108	141										
2 / 25	3.1	1.7																36	36	38	42										
24 / 23	4.1	1.1																39	39	38	41										
2 / 21	2.1																	16	16	21	23										
2 / 19	2.1	.4																19	19	16	20										
1 / 17	2.4	.8																24	24	25	22										
1 / 15	1.5																	11	11	13	11										
1 / 13	1.5	.3																13	13	13	20										
1 / 11	.7																	5	5	5	5										
1 / 9	.3																	2	2	2	10										
1 / 7	1.6																	12	12	12	7										
1 / 5	.5																	4	4	4	7										
4 / 3	.5																	4	4	4	4										
1 / 1	.7																	5	5	5	1										
1 / -1	1.1																	8	8	8	10										
1 / -3	.4																	3	3	3	5										
1 / -5	.8																	6	6	6	7										
1 / -7	.4																	3	3	3	1										
1 / -9																					3										
TOTAL	67.2	31.6	1.1	.1														753	756		753										

Element (K)	$\Sigma x'$	Σx	\bar{x}	\sqrt{x}	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	6630348	71536	95.0	6.757	753	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Dry Bulb	710582	21882	28.9	10.113	756	2.5	60.0					93
Wet Bulb	685789	21465	28.5	9.914	753	2.5	62.7					93
Dew Point	651893	20811	27.6	10.101	753	3.2	68.7					93

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1 6872 GRAFENWOHR AAF DL
STATION

73-81

YEARS

DEC
MONTH

PAGE 1 0600-0800
HOURS (L. S. T.)

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																				TOTAL	TOTAL		
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point			
5 / 47	.1	.6																	6	6	3	1		
4 / 47	.6	.6																	10	10	8	7		
4 / 45	1.7	1.4	.4																27	27	18	20		
4 / 43	1.3	.6	.3																17	17	24	21		
2 / 41	2.4	.5																	23	23	26	23		
4 / 39	2.0	1.1																	25	25	22	25		
3 / 37	1.4	1.5																	23	23	20	11		
1 / 35	2.6	4.5																	55	55	43	35		
3 / 33	5.5	4.0	.1																75	75	78	58		
2 / 31	6.9	6.9	.3																112	110	122	93		
1 / 29	5.9	6.3																	95	95	101	100		
2 / 27	1.0	1.7																	91	91	92	132		
1 / 25	3.4	.8																	33	33	33	43		
2 / 23	5.1	1.1																	48	48	46	49		
2 / 21	2.7	.3																	23	23	25	33		
1 / 19	1.3	.4																	13	13	12	11		
1 / 17	1.4																		11	11	14	13		
1 / 15	1.8	.5																	18	18	18	18		
1 / 13	2.2	.1																	18	18	18	18		
1 / 11	1.1	.1																	9	9	9	11		
1 / 9	1.3	.3																	12	12	10	12		
1 / 7	.9																		7	7	9	5		
1 / 5	.9																		7	7	7	12		
1 / 3	.8																		6	6	6	7		
1 / 1	.4																		3	3	3	1		
1 / -1	1.3																		8	8	8	9		
-1 / -3	.1																		1	1	1	4		
-1 / -5	.5																		4	4	4	5		
-1 / -7	.3																		2	2	2	2		
-1 / -9	.4																		3	3	3	1		
-1 / -11																						2		
-1 / -17																						1		
TOTAL	65.6	33.3	1.2																783	783	783	783		
Element (X)	Σ X ²		Σ X		Σ		Σ		Σ		No. Obs.		Mean No. of Hours with Temperature											
Rel. Hum.	7084165		74293		94.9		6.696		783		± 0 F		± 32 F		± 67 F		± 73 F		± 80 F		± 93 F		Total	
Dry Bulb	734571		22587		28.8		10.303		783		2.1		62.7										93	
Wet Bulb	711761		22245		28.4		10.101		783		2.1		64.5										93	
Dew Point	677641		21553		27.5		10.387		783		2.9		69.1										93	

PSYCHROMETRIC SUMMARY

YEARS

~~SECRET~~

PAGE 1 ~~2920-1130~~

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point														
2 / 51		.5																4	4																
5 / 49	.1	.3	.1															4	4	6	1														
/ 47	.5	.6	.6															14	14	6	9														
4 / 45	2.5	1.1	.6															34	34	20	26														
4 / 43	.8	.9	.1															14	14	20	18														
2 / 41	1.8	1.0	.1	.1														24	24	23	23														
4 / 39	1.8	1.4	.6															30	37	21	22														
3 / 37	2.4	1.9	.1															35	35	31	24														
/ 35	2.9	4.5	.5															62	62	54	43														
3 / 33	5.2	4.2	.3															76	76	77	59														
2 / 31	7.3	7.1	.1															114	114	136	93														
/ 29	5.9	7.1																102	102	104	97														
/ 27	7.8	2.0	.4															80	80	78	127														
/ 25	3.3	1.3	.3															38	38	37	51														
2 / 23	4.3	1.5																46	46	44	56														
2 / 21	1.5	.8																18	18	22	23														
/ 19	1.7	.5																12	12	14	14														
1 / 17	1.8	.8																20	20	20	14														
1 / 15	1.1	.1																10	10	13	17														
1 / 13	1.5	.4																15	15	16	18														
1 / 11	.6	.1																6	6	6	13														
1 / 9	.9																	7	7	7	11														
/ 7	.5	.1																5	5	4	5														
/ 5	.4																	3	3	4	6														
/ 3	.6																	5	5	5	5														
/ 1	.3																	2	2	2	3														
/ -1	.1																	1	1	1	2														
- / -3	.3																	2	2	2	2														
- / -5	.3																	2	2	2	3														
- / -7	.1																	1	1	1															
-1 / -17																					1														
TOTAL	57.6	38.3	3.9	.1														786	786		786														
																		786		786															
Element (X)	Σ x'	Σ x	x̄	s _x	No. Obs.	Mean No. of Hours with Temperature						Total																							
Rel. Hum.	6882966	73272	93.2	8.174	786	≤ 0 F	≤ 32 F	≤ 67 F	≤ 73 F	≤ 80 F	≤ 93 F	Total																							
Dry Bulb	793436	23926	30.4	9.108	786	.7	57.9					93																							
Wet Bulb	761828	23452	29.8	8.893	786	.7	61.3					93																							
Dew Point	712875	22513	28.6	9.310	786	.9	66.4					93																							

PSYCHROMETRIC SUMMARY

73-61

YEARS

~~SECRET~~

PAGE 1 1500-1730

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																				TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B./W.B.	Dry Bulb	Wet Bulb	Dew Point			
4 / 53			.1															1	1					
2 / 51		.1																1	1					
5 / 49	.5	.3																8	8	7	4			
4 / 47	.1	1.2	.5															13	13	4	3			
4 / 45	2.3	1.4	.8															35	35	33	29			
4 / 43	.9	1.8	.3															23	23	20	16			
2 / 41	2.6	3.4	.9	.1														54	54	36	34			
4 / 39	1.9	2.4	.6	.3														41	41	46	39			
3 / 37	2.1	3.2	1.5	.3														55	55	38	38			
2 / 35	3.2	4.0	1.2															63	63	56	46			
3 / 33	5.9	6.2	.5															98	98	100	67			
2 / 31	4.7	9.3																103	103	147	75			
2 / 29	2.8	6.3	.1	.1														73	73	75	87			
2 / 27	6.7	4.3	.6	.1														91	91	81	130			
2 / 25	.9	1.7	.4															23	23	24	59			
2 / 23	.5	2.1																20	20	21	35			
2 / 21	1.8	1.2	.1															24	24	28	17			
2 / 19	2.2	.4																20	20	26	20			
1 / 17	.8	.6																11	11	13	22			
1 / 15	.5	.5																8	8	8	20			
1 / 13	.1	.5																5	5	5	13			
1 / 11	.3	.1																3	3	4	6			
1 / 9	.1	.1																2	2	2	9			
1 / 7	.1																	1	1	2	4			
1 / 5																					1			
1 / 3																					1			
1 / -1																					1			
1 / -3																					1			
TOTAL	47.2	50.9	8.0	.9														776	776	776	776			

Element (X)	Σ X ¹	Σ X	X̄	S _x	N, Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	6318311	69597	89.7	9.927	776	≤ 0 F	≥ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Dry Bulb	881341	25489	32.8	7.545	776		46.0					93
Wet Bulb	830667	24735	31.9	7.383	776		52.3					93
Dew Point	752841	23307	30.0	8.256	776	.2	59.9					92

YEARS

73-81

DEC
MONTH

18CG-20CC

USAFETAC
FORM 0-26-5 (OL A)
JUL 64
REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

PSYCHROMETRIC SUMMARY

73-81

YEARS

DEC
MONTH

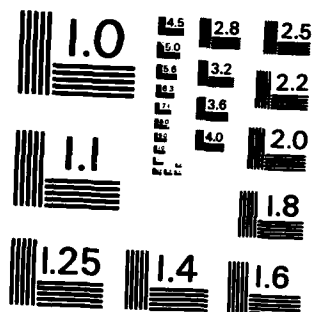
PAGE 1 ~~2120-2340~~

AD-A122 717

GRAFENWOHR AAP GERMANY (WEST) REVISED UNIFORM SUMMARY
OF SURFACE WEATHER..(U) AIR FORCE ENVIRONMENTAL
TECHNICAL APPLICATIONS CENTER SCOTT A.. OS SEP 82
UNCLASSIFIED USAFETAC/DS-82/082 S81-AD-8880 210 F/O 4/2 NL

575

END
DATE
FORMED
2 83
DTIC



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

PSYCHROMETRIC SUMMARY

YEARS

DE

HOURS 9-5

[illegible]

PSYCHROMETRIC SUMMARY

YEARS

ALL MONTH

PAGE 1

ALL
HOURS 11-5 P.M.

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																															TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31	D.B. W.B.	Dry Bulb	Wet Bulb	Dew Point														
4 / 93														.0		.0	.0		4	4															
4 / 91														.0		.0	.0		8	8															
4 / 89									.0	.0	.0	.0	.0	.0	.0	.0	.0		33	33															
6 / 87							.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		49	49															
6 / 85						.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		96	96															
4 / 83						.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0		164	164															
4 / 81					.0	.0	.0	.1	.1	.1	.1	.1	.1	.0					426	426															
4 / 79				.0	.0	.0	.0	.1	.1	.1	.1	.0	.0						338	338															
7 / 77				.0	.0	.1	.2	.2	.2	.2	.1	.0	.0	.0					782	782		1													
6 / 75				.0	.0	.1	.2	.2	.2	.1	.0	.0							670	670		9													
4 / 73			.0	.1	.0	.2	.3	.2	.1	.1	.0								798	798	12	1													
4 / 71		.0	.0	.1	.1	.2	.4	.2	.1	.0	.0	.0							938	938	54	8													
7 / 69		.0	.1	.1	.2	.3	.3	.1	.0	.0									988	988	117	17													
6 / 67		.0	.1	.2	.4	.5	.2	.2	.0	.0	.0								1275	1275	325	44													
6 / 65	.0	.1	.2	.2	.4	.4	.2	.2	.0	.0	.0								1413	1413	715	98													
4 / 63	.1	.4	.6	.7	.6	.6	.4	.2	.1	.0									2704	2706	1327	342													
4 / 61	.1	.5	.5	.5	.4	.3	.2	.1	.0	.0									1992	1992	2203	533													
4 / 59	.5	1.3	.9	.8	.7	.4	.3	.1	.0										3807	3808	2869	1766													
4 / 57	.5	1.0	.7	.6	.3	.2	.1	.0	.0										2695	2695	3605	2080													
5 / 55	.7	1.2	.8	.6	.3	.2	.1	.0											2955	2955	3520	2702													
4 / 53	.8	1.5	.8	.5	.3	.1	.0	.0	.0										3154	3154	3871	3278													
4 / 51	.8	1.7	.7	.3	.2	.1	.0	.0											3021	3021	4104	3355													
5 / 49	1.0	1.9	.9	.3	.2	.1	.0	.0											3376	3376	4083	4294													
4 / 47	.8	1.4	.7	.3	.2	.1	.0												2651	2651	3805	3969													
4 / 45	1.3	2.6	.9	.5	.2	.1	.0												4338	4338	3970	5721													
4 / 43	.9	1.6	.5	.3	.1	.0	.0												2618	2618	3769	3581													
2 / 41	1.9	3.0	.8	.4	.1	.0	.0												4803	4803	3838	5547													
4 / 39	1.5	1.8	.7	.2	.0	.0													3263	3263	3725	3985													
3 / 37	2.1	1.7	.5	.2	.0														3468	3468	3938	4740													
2 / 35	1.8	2.4	.6	.1	.0														3779	3779	3988	3799													
3 / 33	2.7	2.4	.3	.0	.0														4242	4242	4908	4023													
2 / 31	3.1	2.6	.3	.0	.0														4560	4562	5821	5536													
2 / 29	1.8	2.1	.1	.0															3084	3096	3327	4052													
2 / 27	2.8	1.5	.2	.0															3462	3465	3390	5058													
Element (X)	Σ x ²		Σ x		Σ		Σ		No. Obs.		Mean No. of Hours with Temperature																								
Rel. Hum.											≤ 0 F		≤ 32 F		≤ 67 F		≤ 73 F		≤ 80 F		≤ 93 F		Total												
Dry Bulb																																			
Wet Bulb																																			
Dew Point																																			

USAFETAC
FORM
NO. 44
0-26-5 (OL A)
REVISED PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

PSYCHROMETRIC SUMMARY

1 6877 STATION GRAFENWOHR AAF DL STATION NAME 73-61 YEARS ALL MONTH

PAGE 2 ALL MONTH

Temp. (F)	WET BULB TEMPERATURE DEPRESSION (F)																				TOTAL		TOTAL	
	0	1-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	≥ 31	D.B. W.B.	Dry Bulb	Wet Bulb	Dew Point			
1 / 25	1.2	.6	.0																1458	1458	1743	2447		
2 / 23	1.1	.5	.0																1297	1297	1352	2456		
2 / 21	.5	.2	.0																538	538	727	1081		
1 / 19	.5	.1	.0																477	478	507	823		
1 / 17	.4	.1	.0																385	385	463	615		
1 / 15	.3	.1	.0																283	283	293	477		
1 / 13	.3	.1	.0																280	280	282	426		
1 / 11	.2	.1	.0																156	156	159	259		
1 / 9	.2	.0																	198	198	193	272		
1 / 7	.1	.0																	121	121	125	132		
1 / 5	.2	.0																	126	126	130	161		
1 / 3	.1																		85	85	90	88		
1 / 1	.1																		65	65	65	75		
1 / -1	.1	.1																	76	76	74	122		
- / -3	.1																		22	22	24	42		
- / -5	.1																		32	33	32	28		
- / -7	.1																		15	15	15	24		
- / -9	.1																		11	11	11	11		
- / -11																						7		
-1 / -13																						5		
-1 / -15																						1		
-1 / -17																						2		
TOTAL	30.334	412.0	6.8	5.0	4.1	2.9	1.8	1.2	.7	.4	.2	.1	.0	.0	.0	.0	.0		77598		77576	77576		

Element (X)	Σ x ²	Σ x	\bar{x}	s ²	No. Obs.	Mean No. of Hours with Temperature						Total
Rel. Hum.	587364042	6364900	82.018	.003	77576	≤ 0 F	≤ 32 F	≥ 67 F	≥ 73 F	≥ 80 F	≥ 93 F	
Dry Bulb	176929774	3518518	45.314	.970	77598	18.4	1921.2	733.3	375.7	101.8	.9	8760
Wet Bulb	150285226	3277816	42.312	.327	77576	18.4	2157.0	57.6	2.4			8760
Dew Point	129984145	3044311	39.211	.643	77576	28.5	2788.2	7.7	.1			8760

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

MEANS AND STANDARD DEVIATIONS

DRY-BULB TEMPERATURES DEG F FROM HOURLY OBSERVATIONS

1 6870 GRAFENWOHR AAF DL

73-81

STATION

STATION NAME

YEARS

HRS. (LST.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ANNUAL
0-02	MEAN	27.7	28.9	34.3	36.6	45.4	52.4	54.4	53.8	48.9	41.2	34.7	29.6	40.9
	S.D.	9.451	7.749	7.528	6.635	7.427	6.671	5.569	5.992	6.833	6.823	7.631	9.918	12.108
	TOTAL OBS	794	762	837	794	322	805	830	837	804	834	795	715	9629
3-05	MEAN	27.3	27.6	32.7	34.5	42.7	49.7	51.8	51.0	47.0	40.1	34.0	28.9	39.1
	S.D.	9.645	8.526	8.165	6.851	7.482	6.799	5.625	6.328	7.068	6.964	7.954	10.113	11.801
	TOTAL OBS	804	761	837	793	820	808	831	837	804	837	793	756	9681
6-08	MEAN	27.0	27.4	33.3	36.7	47.7	54.9	56.1	54.4	48.4	42.5	34.1	28.8	40.9
	S.D.	9.776	8.836	8.197	6.484	7.548	7.187	5.968	6.518	7.040	6.874	7.818	10.303	13.163
	TOTAL OBS	812	761	837	797	828	809	831	836	805	836	798	783	9733
9-11	MEAN	28.7	31.1	39.4	45.2	56.7	63.1	64.1	64.7	57.3	45.6	36.5	30.4	47.1
	S.D.	9.546	6.580	8.143	7.989	8.342	8.655	7.858	6.869	7.146	6.939	7.328	9.105	15.346
	TOTAL OBS	813	761	837	801	834	808	831	837	802	836	797	786	9743
12-14	MEAN	31.8	35.9	44.6	49.9	60.6	66.5	67.7	69.8	63.1	50.5	39.8	33.3	51.4
	S.D.	6.597	5.943	9.047	9.549	9.509	9.500	8.925	7.745	8.172	7.709	6.950	7.646	15.782
	TOTAL OBS	813	762	837	801	834	810	829	836	804	837	797	780	9740
15-17	MEAN	31.8	36.7	45.7	50.9	61.3	67.5	68.6	70.5	63.8	50.7	39.4	32.8	51.9
	S.D.	6.467	6.414	9.436	9.754	9.642	9.673	9.197	8.239	8.680	7.987	7.172	7.545	16.175
	TOTAL OBS	814	762	837	797	829	810	831	835	804	837	797	776	9729
18-20	MEAN	29.4	32.7	41.1	46.7	57.5	64.4	65.8	65.8	57.9	45.3	36.3	30.7	48.0
	S.D.	7.992	5.692	8.364	8.601	9.083	8.847	8.431	7.914	7.754	6.817	6.849	8.519	15.598
	TOTAL OBS	812	762	836	792	823	809	829	836	799	837	797	763	9695
21-23	MEAN	28.4	30.0	36.7	40.2	49.9	56.9	58.2	57.7	51.6	42.1	35.0	29.8	43.3
	S.D.	8.988	6.559	7.314	6.926	7.785	7.124	6.186	6.196	6.691	6.575	7.194	9.517	13.113
	TOTAL OBS	809	762	837	792	823	808	828	836	799	837	797	720	9648
ALL HOURS	MEAN	29.0	31.3	38.5	42.6	52.7	59.4	60.9	61.0	54.8	44.5	36.2	30.6	45.3
	S.D.	8.770	7.861	9.541	9.962	10.765	10.339	9.551	10.026	9.727	8.141	7.631	9.259	14.970
	TOTAL OBS	6471	6093	6695	6367	6613	6467	6640	6690	6421	6691	6371	6079	77598

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

MEANS AND STANDARD DEVIATIONS

WET-BULB TEMPERATURES DEG F FROM HOURLY OBSERVATIONS

176870 GRAFENWOHR AAF DL

73-81

STATION		STATION NAME												YEARS
HRS. (L.S.T.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ANNUAL
00-02	MEAN	27.3	28.3	33.3	35.3	43.5	50.5	52.5	52.2	47.8	40.4	34.0	29.1	39.8
	S.D.	9.214	7.611	7.186	6.119	6.854	6.057	4.933	5.867	6.499	6.497	7.327	9.625	11.530
	TOTAL OBS	794	762	837	794	822	805	830	837	804	834	794	714	9627
03-05	MEAN	26.6	27.2	32.0	33.5	41.4	48.5	50.6	50.0	46.1	39.4	33.3	28.5	38.3
	S.D.	9.420	8.409	7.888	6.451	7.110	6.458	5.340	6.238	6.908	6.697	7.670	9.914	11.438
	TOTAL OBS	804	760	837	793	820	808	831	837	804	837	792	753	9676
06-08	MEAN	26.6	27.1	32.5	35.3	45.0	52.1	53.7	52.6	47.3	39.7	33.4	28.4	39.6
	S.D.	9.583	8.638	7.871	5.952	6.469	5.933	4.767	6.035	6.703	6.565	7.487	10.101	12.269
	TOTAL OBS	812	760	837	797	828	809	831	836	825	836	798	783	9732
09-11	MEAN	28.1	30.1	37.0	40.8	49.8	55.7	57.5	58.4	53.2	43.5	35.4	29.8	43.4
	S.D.	8.311	6.380	7.197	6.052	5.958	5.598	4.655	4.990	5.642	6.014	6.648	8.893	12.623
	TOTAL OBS	813	760	837	801	834	808	831	836	802	836	797	786	9741
12-14	MEAN	30.7	33.6	40.2	43.0	51.2	56.6	58.4	60.1	55.7	46.4	37.8	32.2	45.7
	S.D.	6.393	5.197	7.307	6.426	6.106	5.518	4.590	5.239	5.854	6.100	6.238	7.362	11.927
	TOTAL OBS	813	762	837	801	834	810	829	836	804	837	797	780	9740
15-17	MEAN	30.9	34.2	40.7	43.3	51.5	56.9	58.8	60.3	55.9	46.6	37.5	31.9	45.9
	S.D.	6.250	5.429	7.391	6.252	5.972	5.446	4.569	5.212	6.033	6.258	6.455	7.383	12.011
	TOTAL OBS	814	762	837	797	828	810	831	835	804	837	795	776	9726
18-20	MEAN	28.8	31.4	38.0	41.6	50.2	56.1	58.0	58.7	53.5	43.4	35.3	30.1	44.1
	S.D.	7.829	5.441	7.068	6.164	6.079	5.309	4.548	5.198	5.959	6.260	6.552	8.356	12.442
	TOTAL OBS	812	762	836	792	823	809	829	836	798	837	793	763	9690
21-23	MEAN	27.9	29.3	35.1	37.9	46.5	53.2	54.9	54.8	49.8	41.0	34.3	29.2	41.4
	S.D.	8.778	6.428	6.746	6.000	6.602	5.557	4.507	5.514	6.098	6.289	6.923	9.277	11.897
	TOTAL OBS	809	762	837	792	823	808	828	836	799	836	794	720	9644
ALL HOURS	MEAN	28.4	30.2	36.1	38.8	47.4	53.7	55.6	55.9	51.2	42.5	35.1	29.9	42.3
	S.D.	8.450	7.274	7.999	7.150	7.339	6.450	5.561	6.690	7.210	6.887	7.113	9.006	12.327
	TOTAL OBS	6471	6090	6695	6367	6612	6467	6640	6689	6420	6697	6360	6075	77576

GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

MEANS AND STANDARD DEVIATIONS

DEW-POINT TEMPERATURES DEG F FROM HOURLY OBSERVATIONS

10870 GRAFENWOHR AAF DL

73-81

STATION	STATION NAME	YEARS												
HRS. (L.S.T.)		JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	ANNUAL
00-02	MEAN	26.4	27.1	31.6	33.3	41.5	48.9	51.3	50.8	46.8	39.4	32.9	28.0	38.4
	S. D.	9.370	8.096	7.658	6.399	7.295	6.134	5.153	6.214	6.495	6.699	7.591	9.883	11.642
	TOTAL OBS	794	762	837	794	922	805	830	837	804	834	794	714	9627
03-05	MEAN	25.7	26.1	30.5	31.9	39.9	47.4	49.5	49.0	45.4	38.5	32.2	27.6	37.2
	S. D.	9.588	8.860	8.371	6.766	7.498	6.493	5.481	6.438	7.004	6.909	7.893	10.101	11.633
	TOTAL OBS	804	760	837	793	820	808	831	837	804	937	792	753	9676
06-08	MEAN	25.6	26.0	31.2	33.3	42.3	49.8	51.8	51.1	46.4	38.8	32.3	27.5	38.2
	S. D.	9.857	9.063	8.197	6.354	6.866	5.897	4.878	6.170	6.704	6.723	7.665	10.387	12.169
	TOTAL OBS	812	760	837	797	828	809	831	836	805	836	798	783	9732
09-11	MEAN	26.9	28.1	34.0	35.5	43.5	50.0	52.8	53.8	49.9	41.2	33.8	28.6	40.0
	S. D.	8.620	7.210	7.624	6.715	7.007	5.883	5.028	5.818	5.831	6.220	7.006	9.310	11.823
	TOTAL OBS	813	760	837	801	834	808	831	836	802	836	797	786	9741
12-14	MEAN	28.7	30.0	34.8	35.1	42.6	49.1	51.8	53.2	49.9	42.3	35.1	30.2	40.4
	S. D.	7.104	6.241	8.016	6.891	7.201	5.985	5.138	6.595	6.407	6.720	6.713	8.128	11.015
	TOTAL OBS	813	762	837	801	834	810	829	836	804	837	797	780	9740
15-17	MEAN	29.1	30.4	34.6	34.8	42.6	48.8	51.8	53.1	49.9	42.6	34.9	30.0	40.4
	S. D.	6.788	6.228	8.078	6.624	7.143	6.061	5.329	6.985	6.700	6.642	6.909	8.256	11.002
	TOTAL OBS	814	762	837	797	828	810	831	835	804	837	795	776	9726
18-20	MEAN	27.5	29.1	34.1	35.7	43.6	49.8	52.4	53.6	50.0	41.5	33.9	28.8	40.2
	S. D.	8.356	6.311	7.570	6.452	6.917	6.042	5.267	6.356	6.164	6.651	7.050	9.006	11.577
	TOTAL OBS	812	762	836	792	823	809	829	836	798	837	793	763	9697
21-23	MEAN	26.8	27.6	32.8	34.9	43.2	50.2	52.3	52.5	48.2	39.8	33.0	28.0	39.3
	S. D.	9.170	7.121	7.350	6.199	7.219	5.903	4.943	5.987	6.133	6.634	7.281	9.684	11.804
	TOTAL OBS	809	762	837	792	823	808	828	836	799	836	794	720	9644
ALL HOURS	MEAN	27.1	28.1	32.9	34.3	42.4	49.2	51.7	52.2	48.3	40.5	33.5	28.6	39.2
	S. D.	8.747	7.628	8.012	6.668	7.232	6.108	5.241	6.517	6.678	6.816	7.344	9.412	11.643
	TOTAL OBS	6471	6090	6695	6367	6612	6467	6640	6689	6420	6690	6360	6075	77576

RELATIVE HUMIDITY

JAN
MONTH

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS.
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
JAN.	0-02	100.0	100.0	100.0	100.0	100.0	99.7	99.5	97.1	77.5	84.7	794
	03-05	100.0	100.0	100.0	100.0	100.0	99.8	99.6	96.4	74.7	84.9	874
	06-08	100.0	100.0	100.0	100.0	100.0	100.0	99.4	95.3	75.6	84.8	817
	09-11	100.0	100.0	100.0	100.0	100.0	99.9	99.0	93.7	69.9	87.3	813
	12-14	100.0	100.0	100.0	100.0	99.9	99.4	95.5	81.7	47.7	88.7	815
	15-17	100.0	100.0	100.0	100.0	100.0	99.6	96.7	86.6	53.3	89.9	814
	18-20	100.0	100.0	100.0	100.0	100.0	99.5	98.3	87.8	71.6	92.	813
	21-23	100.0	100.0	100.0	100.0	100.0	99.9	99.4	96.	77.3	88.8	879
TOTALS		100.0	100.0	100.0	100.0	100.0	99.7	99.4	96.5	86.6	90.9	4473

RELATIVE HUMIDITY

534

MONTH

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO OF OBS
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
FEB	00-02	100.0	100.0	100.0	100.0	99.6	99.3	98.7	94.2	77.6	93.0	761
	03-05	100.0	100.0	100.0	100.0	100.0	99.7	98.5	94.9	77.6	94.4	761
	06-08	100.0	100.0	100.0	100.0	100.0	100.0	96.8	94.9	76.1	94.0	761
	09-11	100.0	100.0	100.0	100.0	99.3	97.9	93.3	81.3	50.1	85.0	761
	12-14	100.0	100.0	100.0	99.1	95.9	87.4	74.4	58.5	26.0	81.4	761
	15-17	100.0	100.0	100.0	99.2	94.5	87.4	70.5	55.4	26.0	77.5	761
	18-20	100.0	100.0	100.0	100.0	99.9	98.3	89.1	78.0	42.9	97.0	761
	21-23	100.0	100.0	100.0	100.0	100.0	99.7	96.6	91.0	55.3	91.0	761
TOTALS		100.0	100.0	107.0	99.8	98.7	96.2	90.7	81.1	53.9	80.5	609

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GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

RELATIVE HUMIDITY

100-270 STATION GRAFENWOHR AAF DL 73-61 PERIOD MONTH

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO OF OBS
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
MAP	00-02	100.0	100.0	100.0	100.0	100.0	98.9	96.5	84.8	65.7	30.0	437
	03-05	100.0	100.0	100.0	100.0	99.8	99.2	98.0	91.2	80.8	61.0	337
	06-08	100.0	100.0	100.0	100.0	100.0	100.0	98.3	90.0	82.1	70.0	337
	09-11	100.0	100.0	100.0	99.9	98.4	92.8	77.1	57.2	37.9	32.0	437
	12-14	100.0	100.0	99.9	97.1	87.7	68.2	47.6	30.5	14.2	70.5	337
	15-17	100.0	100.0	99.4	93.8	80.6	62.0	41.5	25.2	11.4	67.5	437
	18-20	100.0	100.0	99.7	99.3	95.6	86.1	66.4	40.3	19.9	77.5	437
	21-23	100.0	100.0	100.0	99.9	99.3	96.5	90.2	75.1	38.5	66.4	337
TOTALS		100.0	100.0	99.9	98.8	95.2	88.0	77.0	62.5	36.7	30.0	669

GLOBAL CLIMATOLOGY BRANCH
USAFETAC
AIR WEATHER SERVICE/MAC

RELATIVE HUMIDITY

116870
STATION

CPAFENWHP AAF DL
STATION NAME

73-81
PERIOD

APR
MONTH

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

MONTH	HOURS (L.S.T.)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO OF OBS
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
APR	00-02	100.0	100.0	100.0	100.0	100.0	98.5	92.3	88.1	46.7	88.1	794
	03-05	100.0	100.0	100.0	100.0	100.0	99.2	94.7	86.5	59.3	91.7	793
	06-08	100.0	100.0	100.0	100.0	99.4	96.4	89.7	79.7	42.6	88.2	797
	09-11	100.0	100.0	99.6	94.6	84.8	68.3	51.7	34.7	16.0	71.1	801
	12-14	100.0	99.6	95.0	82.8	62.5	43.6	29.6	13.1	8.4	67.1	801
	15-17	100.0	99.5	92.0	77.4	57.1	40.0	25.6	11.3	7.0	57.6	797
	18-20	100.0	99.9	98.5	93.2	81.7	63.8	44.1	28.3	17.3	60.4	797
	21-23	100.0	100.0	100.0	99.9	98.7	92.0	80.1	59.8	28.8	82.1	793
TOTALS		100.0	99.9	98.1	93.5	85.5	75.2	63.5	50.4	28.4	75.8	6367

GLOBAL CLIMATOLOGY BRANCH
 AF/FLTAC
 AIR WEATHER SERVICE/MAC

RELATIVE HUMIDITY

1977 STATION CRAFTEN OHP AAF DL STATION NAME 73-81 PERIOD MAY MONTH

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO OF OBS
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
MAY	0-02	100.0	100.0	100.0	100.0	99.2	96.7	90.9	74.9	47.3	46.0	621
	03-05	100.0	100.0	100.0	100.0	99.8	98.8	93.0	84.5	64.4	57.1	61
	06-08	100.0	100.0	100.0	99.9	97.5	89.5	60.2	63.7	37.7	52.3	616
	09-11	100.0	100.0	99.4	91.1	72.9	54.3	36.5	14.9	7.4	63.7	634
	12-14	100.0	100.0	93.7	73.5	57.3	33.3	22.7	11.0	3.3	54.6	674
	15-17	100.0	99.8	91.7	66.5	48.2	32.7	24.3	11.6	3.6	57.7	607
	18-20	100.0	100.0	97.4	66.1	70.7	51.3	37.4	21.7	7.9	62.7	607
	21-23	100.0	100.0	100.0	99.3	96.1	87.0	73.3	51.2	29.4	71.3	627
TOTALS		100.0	100.0	97.7	89.8	79.5	68.0	57.4	40.1	21.9	71.6	617

RELATIVE HUMIDITY

77-21

STATION

STATION NAME

PERIOD

MONTH

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
JUN	00-02	100.0	100.0	100.0	100.0	100.0	99.1	94.8	81.2	41.2	25.4	110
	03-05	100.0	100.0	100.0	100.0	100.0	99.9	99.1	90.1	51.4	25.4	107
	06-08	100.0	100.0	100.0	100.0	98.4	94.4	85.9	60.4	25.7	21.5	109
	09-11	100.0	100.0	99.4	93.3	77.2	55.9	35.7	19.4	8.2	24.7	107
	12-14	100.0	99.5	94.9	79.5	58.4	37.9	20.7	8.9	3.4	25.7	101
	15-17	100.0	99.1	91.0	75.4	56.5	34.4	19.4	8.2	3.0	24.4	101
	18-20	100.0	99.9	95.6	86.7	71.7	54.1	35.4	18.2	5.9	20.7	104
	21-23	100.0	100.0	99.6	96.9	95.7	93.7	87.7	50.5	27.2	25.7	103
TOTALS		100.0	99.8	97.5	91.7	82.4	71.4	59.1	41.2	27.4	22.7	5467

USAFETAC FORM 0-87-5 (OL A)

RELATIVE HUMIDITY

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STATION

STATION NAME

PERIOD:

MONTH

[illegible]

USAFETAC FORM 0-87-5 (OL A)

FORM
2-75 (Rev. 6-66)

RELATIVE HUMIDITY

1. 097. GRAFENWOHR AAF DL

STATION	STATION
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73-81

AUG
MONTH

**CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE
(FROM HOURLY OBSERVATIONS)**

MONTH	HOURS (L.S.T.)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS.
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
AUG	00-02	100.0	100.0	100.0	100.0	100.0	99.6	97.4	85.4	49.8	39.9	637
	03-05	100.0	100.0	100.0	100.0	100.0	100.0	99.5	94.1	62.5	32.9	637
	06-08	100.0	100.0	100.0	100.0	99.9	98.9	95.2	81.6	43.1	28.4	636
	09-11	100.0	100.0	99.9	98.7	87.0	67.7	49.3	25.6	8.1	49.4	636
	12-14	100.0	100.0	98.3	86.1	63.2	40.0	23.4	11.7	2.3	57.9	634
	15-17	100.0	99.9	95.2	83.5	57.0	38.7	24.9	15.7	4.7	57.0	634
	18-20	100.0	100.0	98.4	90.8	77.9	62.6	48.3	29.1	9.7	67.5	634
	21-23	100.0	100.0	100.0	100.0	98.4	94.6	84.9	65.3	29.5	47.7	636
TOTALS		100.0	100.0	99.0	94.5	85.4	75.3	65.4	51.5	25.3	75.9	6599

RELATIVE HUMIDITY

SEP
MONTH

MONTH	HOURS (L.S.T.)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS.
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
SEP	00-02	100.0	100.0	100.0	100.0	100.0	100.0	99.2	91.6	67.7	27.4	10
	03-05	100.0	100.0	100.0	100.0	100.0	100.0	99.9	90.3	71.3	24.1	87
	06-08	100.0	100.0	100.0	100.0	100.0	99.9	99.5	91.6	61.9	27.4	107
	09-11	100.0	100.0	100.0	99.8	97.0	86.3	71.4	44.5	19.1	7.6	37
	12-14	100.0	100.0	99.5	95.4	87.2	54.6	33.1	15.7	4.5	67.9	50
	15-17	100.0	100.0	99.0	92.8	77.7	49.6	30.6	10.7	4.0	62.7	47
	18-20	100.0	100.0	99.6	98.4	94.9	85.1	70.7	44.9	13.7	76.0	79
	21-23	100.0	100.0	100.0	100.0	100.0	98.7	94.7	91.5	43.7	49.4	79
TOTALS		100.0	100.0	99.6	98.3	93.7	84.3	75.0	60.7	34.6	21.1	142

USAPETAC FORM 0-87-5 (OL A)

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J. J. CLIMATOLOGY BRANCH
 J. J. CLIMATOLOGY BRANCH
 J. J. CLIMATOLOGY BRANCH

RELATIVE HUMIDITY

STATION NAME: GRAFENWHR AAF DL

PERIOD: 77-81

MONTH:

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO. OF OBS
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
01-02		100.0	100.0	100.0	100.0	100.0	99.2	97.6	93.4	89.7	92.4	834
03-05		100.0	100.0	100.0	100.0	100.0	99.6	98.1	94.5	72.9	94.1	837
06-08		100.0	100.0	100.0	100.0	100.0	99.8	98.3	94.4	70.3	93.9	836
09-11		100.0	100.0	100.0	100.0	99.6	94.6	85.6	68.9	32.7	95.5	835
12-14		100.0	100.0	99.8	98.7	93.4	81.6	63.1	32.9	16.5	75.3	837
15-17		100.0	100.0	99.6	98.9	94.7	81.6	66.1	33.1	15.8	75.5	837
18-20		100.0	100.0	100.0	99.9	99.3	97.1	91.5	75.7	40.5	87.2	837
21-23		100.0	100.0	100.0	100.0	99.8	98.9	95.5	85.2	67.6	91.7	836
TOTALS		100.0	100.0	99.9	99.7	98.3	94.1	87.7	74.1	47.8	87.1	4607

RELATIVE HUMIDITY

NOV
MONTH

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO OF OBS
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
NBY	0-02	100.0	100.0	100.0	100.0	100.0	99.5	97.5	91.2	69.2	57.2	764
	03-05	100.0	100.0	100.0	100.0	100.0	99.9	97.3	93.7	69.2	57.4	792
	06-08	100.0	100.0	100.0	100.0	100.0	99.6	97.7	93.0	70.7	57.4	792
	09-11	100.0	100.0	100.0	100.0	99.9	98.9	95.5	87.1	57.1	40.2	797
	12-14	100.0	100.0	100.0	99.6	98.5	95.1	84.7	67.4	35.0	24.0	797
	15-17	100.0	100.0	99.9	99.6	98.9	95.3	66.0	69.2	37.2	24.5	795
	18-20	100.0	100.0	100.0	100.0	99.4	99.0	96.7	92.7	57.5	31.0	793
	21-23	100.0	100.0	100.0	100.0	100.0	97.6	97.7	91.5	64.5	52.5	794
TOTALS		100.0	100.0	100.0	99.9	99.6	98.4	94.1	83.0	57.0	40.4	6367

USAPETAC FORM 0-87-3 (OL A)

RELATIVE HUMIDITY

PERIOD

MONTH

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO OF OBS.
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
JUL	00-02	100.0	100.0	100.0	100.0	100.0	99.4	97.5	94.1	77.2	93.7	714
	03-05	100.0	100.0	100.0	100.0	100.0	100.0	99.3	96.7	79.7	95.0	753
	06-08	100.0	100.0	100.0	100.0	100.0	100.0	99.6	96.0	75.8	94.9	757
	09-11	100.0	100.0	100.0	100.0	100.0	99.5	98.0	92.9	70.4	93.2	735
	12-14	100.0	100.0	100.0	100.0	100.0	98.5	92.9	74.5	50.3	86.7	733
	15-17	100.0	100.0	100.0	100.0	99.9	98.7	94.5	84.4	57.6	89.7	776
	18-20	100.0	100.0	100.0	100.0	100.0	99.3	97.9	93.1	66.3	92.2	763
	21-23	100.0	100.0	100.0	100.0	100.0	99.6	98.2	94.7	69.4	93.3	727
TOTALS		100.0	100.0	100.0	100.0	100.0	99.4	97.2	91.5	67.7	92.6	673

GLOBAL CLIMATOLOGY BRANCH
USCETAC
AF WEATHER SERVICE/MAC

RELATIVE HUMIDITY

10-70 STATION GRAFENWOHR AAF DL 77-81 PERIOD ALL MONTH

CUMULATIVE PERCENTAGE FREQUENCY OF OCCURRENCE (FROM HOURLY OBSERVATIONS)

MONTH	HOURS (LST)	PERCENTAGE FREQUENCY OF RELATIVE HUMIDITY GREATER THAN									MEAN RELATIVE HUMIDITY	TOTAL NO OF OBS
		10%	20%	30%	40%	50%	60%	70%	80%	90%		
JAN	ALL	100.0	100.0	100.0	100.0	100.0	99.7	98.4	96.5	94.5	88.1	477
FEB		100.0	100.0	100.0	99.8	98.7	96.2	93.0	81.1	70.9	64.0	410
MAR		100.0	100.0	99.9	98.8	95.0	88.0	77.0	62.0	36.7	40.0	454
APR		100.0	99.9	99.1	93.5	85.5	75.2	63.5	50.4	29.4	70.0	1247
MAY		100.0	100.0	97.7	89.8	79.5	68.0	57.4	40.1	21.9	71.5	461
JUN		100.0	99.8	97.6	91.7	82.4	70.4	59.1	40.3	20.0	70.7	4467
JUL		100.0	99.7	97.8	93.6	85.5	74.6	63.8	49.9	29.9	75.1	6847
AUG		100.0	100.0	99.7	94.5	85.4	75.3	65.4	51.6	26.3	75.9	4659
SEP		100.0	100.0	99.6	98.3	93.7	84.3	75.0	60.2	34.3	81.1	4407
OCT		100.0	100.0	99.9	99.7	98.3	94.1	87.0	74.1	47.8	67.1	3697
NOV		100.0	100.0	100.0	99.9	99.6	98.4	94.1	80.0	57.0	90.4	5367
DEC		100.0	100.0	100.0	100.0	100.0	99.4	97.0	91.5	80.7	92.5	6075
TOTALS		100.0	100.0	99.1	96.6	92.0	85.3	77.3	64.3	40.8	60.2	77574

U S AIR FORCE
ENVIRONMENTAL TECHNICAL
APPLICATIONS CENTER

PART F

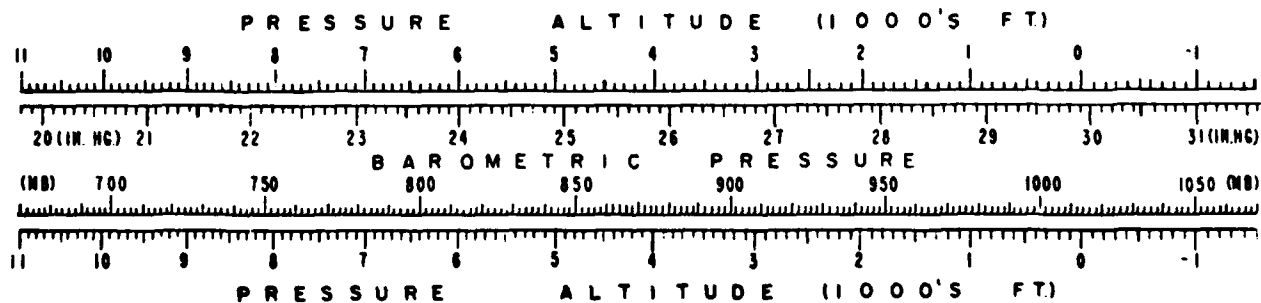
PRESSURE SUMMARY

Presented in this part are two tables giving the means, standard deviations, and total number of observations of station pressure and sea-level pressure by month and annual for the local hourly observations corresponding to the eight 3-hourly synoptic times GCT. The same computations are also provided at the bottom of the page for all hours combined. All years of data available are combined in both of these tables, although the overall period is limited by service as indicated below.

NOTES: Station pressure not reported for all services until late in 1945.
Station pressure reported only at 6-hourly times for Air Force stations from Jan 64 - Jul 65.
METAR stations do not report Sea-level pressure for the period Jan 68 - Dec 70.

1. Station pressure is presented in the table in inches of mercury.
2. Sea-level pressure is presented in millibars. **DATA NOT AVAILABLE**

Provided below is a scale to convert station pressure values in inches of mercury or millibars to pressure-altitude in 1000's of feet. This scale is an enlarged model of the pressure-altitude scale in the Smithsonian Meteorological Tables.



GLOBAL CLIMATOLOGY BRANCH
USAF ETAC
AIR WEATHER SERVICE/MAC

MEANS AND STANDARD DEVIATIONS

STATION PRESSURE IN INCHES HG FROM HOURLY OBSERVATIONS

14870 GRAFENWOHR AAF DL

73-81

STATION

STATION NAME

YEARS

HRS (LST)		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1	MEAN	28.566	28.531	28.489	28.496	28.531	28.569	28.570	28.612	28.629	28.561	28.599	28.572	28.555
	S.D.	.374	.326	.247	.195	.189	.151	.131	.138	.166	.256	.273	.354	.247
	TOTAL OBS	266	254	279	265	274	269	277	279	268	278	265	238	3212
4	MEAN	28.559	28.521	28.478	28.485	28.524	28.562	28.559	28.604	28.617	28.550	28.592	28.491	28.545
	S.D.	.306	.327	.247	.196	.192	.151	.133	.141	.173	.258	.270	.362	.243
	TOTAL OBS	269	254	279	265	274	270	277	279	268	279	265	258	3237
7	MEAN	28.557	28.520	28.484	28.494	28.539	28.573	28.568	28.613	28.625	28.554	28.595	28.494	28.552
	S.D.	.306	.332	.247	.199	.196	.152	.136	.142	.175	.261	.269	.363	.245
	TOTAL OBS	271	254	279	265	275	270	277	279	268	279	266	261	3244
10	MEAN	28.574	28.537	28.497	28.499	28.530	28.577	28.571	28.620	28.630	28.569	28.614	28.579	28.562
	S.D.	.306	.334	.251	.199	.194	.151	.136	.140	.176	.265	.271	.359	.246
	TOTAL OBS	271	254	279	266	278	270	277	279	266	279	265	263	3247
13	MEAN	28.562	28.527	28.485	28.484	28.523	28.564	28.559	28.603	28.621	28.551	28.598	28.494	28.548
	S.D.	.304	.331	.247	.198	.190	.148	.132	.136	.172	.265	.271	.357	.243
	TOTAL OBS	271	254	279	267	278	270	277	279	268	279	266	259	3247
16	MEAN	28.554	28.515	28.465	28.464	28.505	28.549	28.548	28.587	28.603	28.539	28.589	28.490	28.534
	S.D.	.300	.325	.243	.193	.186	.145	.132	.133	.167	.261	.270	.356	.240
	TOTAL OBS	272	254	279	265	278	270	277	279	268	279	266	259	3246
19	MEAN	28.563	28.533	28.477	28.473	28.509	28.548	28.543	28.590	28.608	28.554	28.598	28.574	28.542
	S.D.	.303	.322	.240	.192	.184	.144	.130	.133	.169	.256	.272	.356	.239
	TOTAL OBS	271	254	279	265	274	271	276	279	266	279	266	253	3232
22	MEAN	28.567	28.541	28.487	28.495	28.533	28.571	28.564	28.611	28.626	28.567	28.600	28.514	28.557
	S.D.	.305	.323	.242	.195	.185	.148	.130	.137	.170	.259	.274	.351	.239
	TOTAL OBS	269	254	279	264	275	269	276	278	266	279	266	235	3213
ALL HOURS	MEAN	28.563	28.520	28.483	28.486	28.525	28.564	28.560	28.605	28.621	28.555	28.598	28.500	28.549
	S.D.	.374	.327	.245	.196	.189	.149	.133	.138	.171	.260	.271	.357	.242
	TOTAL OBS	2160	2032	2232	2122	2206	2158	2214	2231	2138	2231	2125	2026	25875

USAF ETAC

FORM
JUL 64

0-89-5 (OL 1)

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